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Systemic Risk Regulation in Comparative Perspective

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Survol[1]

Le Procureur général du Canada m'a demandé de préparer un rapport qui compare l'avant-projet de la *Loi sur la stabilité des marchés des capitaux* (la *LSMC*) [2] à la réglementation en matière de risque systémique de trois autres juridictions : les États-Unis (É.-U.), le Royaume-Uni (R.-U.) et l'Union européenne (UE). Dans le cadre de ce rapport, j'examine aussi, au besoin, les mesures internationales visant à définir et à répondre au risque systémique[3].

Les économistes tout comme les régulateurs reconnaissent que le risque systémique est une préoccupation réelle et continue. Il est généralement reconnu, dans la communauté internationale, que la crise financière de 2008 est apparue dans l'espace règlementaire des ~~les~~ marchés des capitaux. Puisque les conditions de base et les structures réglementaires varient d'une juridiction à une autre, les réponses réglementaires de l'après-crise sont aussi différentes dans chaque juridiction. Cependant, en ce qui a trait aux réponses de l'après-crise des thèmes communs se recoupent dans toutes ces juridictions, notamment:

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[1] Je remercie Kelly Kan et Mona Yousif, respectivement JD 2017 et 2016 de l'Allard School of Law, pour leur aide à la recherche exceptionnelle dans le cadre du présent projet.

[2] Le présent rapport est fondé sur l'ébauche d'avant-projet de la *LSMC* que j'ai reçue de Justice Canada le 23 décembre 2015. La *LSMC* contient plusieurs sections distinctes et couvre tant la réglementation du risque systémique que les questions relevant du pouvoir fédéral en matière criminelle. Il contient aussi des dispositions administratives et d'application de la loi qui découlent des dispositions de fond. Le présent rapport ne porte que sur les aspects de la Loi portant sur la réglementation du risque systémique et sur la collecte de données, c.-à-d. les Parties I et II.

[3] Le présent rapport adopte la définition de « risque systémique » établie dans un rapport conjoint de la BRI, du FMI et du CSF au G-20 en 2009 : [TRADUCTION] « Le risque d'une perturbation des services financiers i) causée par l'entravement de l'ensemble ou d'une partie du système financier et ii) susceptible d'avoir des conséquences négatives graves sur l'économie réelle. La notion d'effets externes négatifs provenant de la perturbation ou la défaillance d'une institution financière, d'un marché ou d'un instrument est un élément fondamental de la définition. Tous les types d'intermédiaires, d'infrastructures ou de marchés financiers sont susceptibles de présenter une certaine importance systémique ». Fonds monétaire international, Banque des règlements internationaux et Conseil de stabilité financière, *Guidance to Assess the Systemic Importance Of Financial Institutions, Markets And Instruments: Initial Considerations*. 2009. Disponible en anglais seulement : https://www.imf.org/external/np/g20/pdf/100109.pdf. Ce rapport utilise également le terme réglementation macroprudentielle de manière interchangeable avec le terme réglementation du risque systémique.

* *Traduction non révisée par l'auteur du rapport*

1. Garantir que les structures réglementaires nécessaires existent afin de permettre de répondre rapidement, de façon proactive, efficace et coordonnée au niveau national ou supranational (c.-à-d. l'ensemble du marché), et;
2. Garantir que les régulateurs disposent d'un nouvel ensemble d'outils dans le cadre des marchés de capitaux, lesquels sont différents de ceux disponibles pour réglementer le marché des valeurs mobilières au quotidien.

Au sujet du premier point : en comparaison avec les É.-U., le R.-U. et l'UE, le Canada est la seule juridiction qui n'a pas de structure réglementaire au niveau national (ou, pour l'UE, au niveau supranational) pour traiter du risque systémique dans ses marchés de capitaux[4]. Contrairement aux autres juridictions dont il est question ici, le Canada n'a même pas la capacité de recueillir les renseignements nécessaires, ni de répondre à des situations urgentes.

Au sujet du deuxième point : en plus d'avoir la capacité de répondre de façon significative au risque systémique, toutes les autres juridictions ont également une structure réglementaire différente visant à identifier, réduire et répondre au risque systémique. Chacune des juridictions examinées considère que la nature du risque systémique est différente des risques quotidiens qui apparaissent *au sein* marchés, risques que les régulateurs provinciaux couvrent clairement au Canada. Le risque systémique est un risque menaçant le marché *lui-même* et, en raison de son caractère généralisé, il agit différemment. Cela signifie que, dans chacune des juridictions à l'étude, beaucoup des outils de réglementation concrets mis en place pour répondre au risque systémique sont différents des

[4] Aux fins de ce rapport, les « marchés de capitaux » sont les marchés financiers dans lesquels sont vendus les titres d'emprunt et de participation, les instruments dérivés, ainsi que les instruments à court terme, comme les opérations de pensions sur titre (*repurchase agreements*). Ce sont les marchés dont les compagnies se servent pour mobiliser des capitaux. Ces marchés font partie intégrante des « marchés financiers », plus vastes, qui aux fins de ce rapport, signifient toutes les activités du secteur financier relevant du champ d'application des régulateurs du secteur bancaire, de l'assurance et des marchés de capitaux.

outils de réglementation qui existent déjà pour la gestion des opérations quotidiennes des marchés des valeurs mobilières.

L'ébauche d'avant-projet de la *LSMC* traite le risque systémique dans les marchés de capitaux d'une façon conforme aux orientations politiques internationales et aux avancées législatives d'après-crise des autres juridictions (tenant compte des différences liées aux particularités institutionnelles et constitutionnelles de chaque juridiction). En particulier, en ce qui a trait aux deux points susmentionnés :

1. <u>Garantir que les structures réglementaires nécessaires existent</u> : la LSMC comblerait une lacune en matière de risque systémique *dans les marchés de capitaux*, offrant une capacité que les autres régulateurs nationaux de marchés de capitaux aux É.-U., au R.-U. et à l'UE possèdent déjà. La LSMC met l'accent sur la surveillance et la règlementation du risque systémique *dans les marchés de capitaux*. Elle ne créerait pas un organisme de surveillance du risque systémique visant les marchés financiers dans leur ensemble. Elle n'établirait pas non plus un forum multi-agences pour discuter et coordonner les actions portant sur le risque systémique. Le Comité consultatif supérieur du Canada (CCS) remplit déjà cette fonction, bien qu'il n'y ait pas de représentant d'un organisme de règlementation des marchés de capitaux, ce qui limite grandement sa portée. La participation de l'Autorité de réglementation des marchés des capitaux (« l'Autorité ») au CCS comblerait cette lacune.

2. <u>Garantir que les régulateurs disposent d'un nouvel ensemble d'outils dans le cadre des marchés de capitaux</u> : les pouvoirs prévus dans l'ébauche d'avant-projet de la *LSMC* cherchent à cerner et à gérer le risque systémique et non à protéger les investisseurs ou à garantir que les marchés de capitaux sont justes et efficaces. La gamme de pouvoirs prévus dans l'ébauche d'avant-projet de la *LSMC* correspond aux pouvoirs en matière de risque systémique qui existent déjà dans les autres juridictions étudiées dans le présent rapport.

Overview[1]

The Attorney General of Canada has asked me to prepare a report that considers the proposed *Capital Markets Stability Act* (*CMSA*)[2] in comparison to systemic risk regulation in three other jurisdictions: the United States (US), the United Kingdom (UK) and the European Union (EU). As part of this report I also discuss, as necessary, international measures to define and address systemic risk. [3]

Economists and regulators alike recognize that systemic risk is a real and ongoing concern. It is generally accepted in the international community that the capital markets were the regulatory space in which the financial crisis of 2008 developed. Background conditions and regulatory structures differ from jurisdiction to jurisdiction, meaning that post-crisis regulatory responses also look different in each jurisdiction. However, common themes run through all these jurisdictions in terms of responses to the crisis. They are:

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[1] I am grateful to Kelly Kan and Mona Yousif, Allard Law JDs 2017 and 2016 respectively, for exceptional research assistance on this project.

[2] The present report is based on a draft proposed *CMSA* that I received from Justice Canada on December 23, 2015. The *CMSA* contains several discrete sections and covers both systemic risk regulation and matters under federal criminal law power, along with administration and enforcement provisions that flow from the substantive provisions. This report addresses only the systemic risk regulation and data collection aspects of the Act; i.e., its Parts I and 2.

[3] This report adopts the definition of "systemic risk" put forward in a joint report by the BIS, IMF, and FSB to the G20 in 2009: "the risk of disruption to financial services that is (i) caused by an impairment of all or parts of the financial system and (ii) has the potential to have serious negative consequences for the real economy. Fundamental to the definition is the notion of negative externalities from a disruption or failure in a financial institution, market, or instrument. All types of financial intermediaries, markets, and infrastructure can potentially be systemically important to some degree." IMF/BIS/FSB, *Guidance to Assess the Systemic Importance Of Financial Institutions, Markets And Instruments: Initial Considerations*, Report to the G20 Finance Ministers and Central Bank Governors (October 2009). Available at https://www.imf.org/external/np/G-20/pdf/100109.pdf. This report also uses the term "macroprudential regulation" interchangeably with "systemic risk regulation".

1. Ensuring the necessary regulatory structure exists to give the jurisdiction the ability to respond quickly, proactively, effectively and in a coordinated fashion at the national or supranational (i.e., market-wide) level, and

2. Ensuring a new set of tools are available to regulators in the capital markets, which are different in kind from those provided for to address day-to-day securities regulation.

On the first point: as compared to the US, the UK and the EU, Canada is the only jurisdiction that does not have the regulatory structure at the national level (or, for the EU, the supranational level) to address systemic risk in its capital markets.[4] Unlike the other jurisdictions considered here, Canada lacks even the ability to gather necessary information, or to respond in urgent situations.

On the second point: in addition to the capacity to respond meaningfully to systemic risk, in all other jurisdictions we also see a different kind of regulatory structure, geared toward identifying, reducing and responding to systemic risk. In each of the jurisdictions studied, systemic risk is considered different in nature from the kinds of day-to-day risks that arise *within* markets, which we see addressed by the different provincial regulators in Canada. Systemic risk is a risk to the market *itself* and, by virtue of its systems-level properties, it behaves differently. This means that, in each of the jurisdictions examined, many of the concrete regulatory

[4] For purposes of this report, "capital markets" are the financial markets in which debt and equity securities and derivatives, as well as short term instruments like securities repurchase agreements, are sold. They are the markets that companies use to raise capital. They are part of the broader "financial markets", which for purposes of this report means all financial sector activities that fall under the jurisdiction of banking, insurance and capital markets regulators.

tools put in place to address systemic risk are different in kind from the regulatory tools that already exist to manage day-to-day operations of the securities markets.

The proposed CMSA addresses systemic risk in capital markets in a manner that is consistent with international policy guidance and with post-crisis legislative developments in other jurisdictions (once necessary differences due to each jurisdiction's unique institutional and constitutional arrangements are taken into account). In particular, vis-à-vis the two points above,

1. Ensuring the necessary regulatory structure exists: the *CMSA* would fill a gap around systemic risk *in the capital markets*, providing capacity that other national capital markets regulators in the US, the UK and the EU already have. The CMSA focuses on systemic risk oversight and regulation *in the capital markets*. It would not create a broad systemic risk oversight body over the financial markets as a whole. Nor would it establish a multi-agency forum for discussing, responding to and coordinating action with respect to systemic risk. Canada's Senior Advisory Committee (SAC) already serves that function albeit with no representation from a capital markets regulator, which drastically limits its range. Adding the Capital Markets Regulatory Authority ("Authority") to SAC's membership would fill this gap.

2. Ensuring a new set of tools are available to regulators in the capital markets: the powers provided for in the proposed *CMSA* are geared toward identifying and managing systemic risk, not toward protecting investors or ensuring fair and efficient capital markets. The suite of powers contemplated in the proposed *CMSA* is in line with the systemic risk powers that now exist in the other jurisdictions studied here.

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My Qualifications

I am an Associate Professor and the Director of the Centre for Business Law at the University of British Columbia, Allard School of Law.

My research focuses primarily on regulatory theory as it relates to international, US and Canadian financial and securities regulation. I have several publications analyzing novel remedies in securities law enforcement, principles-based approaches to securities regulation, systemic risk regulation and the regulation of financial innovation, and prospects for "responsive" financial regulation. I am co-author of the leading text, *Canadian Securities Regulation* (5th ed., 2014) with His Excellency the Right Honourable David Johnston and Kathleen Rockwell.

Prior to joining UBC, I practiced securities regulation and administrative law in both Canada and the United States (the latter at Davis Polk and Wardwell LLP in New York). I obtained my graduate degrees from Columbia Law School, where I also taught in a variety of capacities. I sit on the editorial boards of the international peer-reviewed journals *Regulation & Governance* (which I also edited from 2012 to 2015) and the *Journal of International Economic Law*, and I am a member of the Academic Advisory Board of the Canadian Coalition for Good Governance (CCGG). I am currently at work on a book project for Cambridge University Press, which examines the relationship between regulation and financial innovation.

Abbreviations used in this Report

INTERNATIONAL/TRANSNATIONAL BODIES

IMF	International Monetary Fund
FSB	Financial Stability Board
BIS	Bank for International Settlements
G20	Group of Twenty
BCBS	Basel Committee on Banking Supervision
IOSCO	International Organization of Securities Commissions

CANADIAN BODIES

BoC	Bank of Canada
OSFI	Office of the Superintendent of Financial Institutions
CDIC	Canadian Deposit Insurance Corporation
FISC	Financial Institutions Supervisory Committee
CSA	Canadian Securities Administrators
SAC	Senior Advisory Committee

BENCHMARKS

LIBOR	London Inter-Bank Offered Rate
EURIBOR	European Inter-Bank Offered Rate
TIBOR	Tokyo Inter-Bank Offered Rate
CDOR	Canadian Dollar Offered Rate
CORRA	Canadian Overnight Repo Rate

EU / UK / US REGULATORS OR BODIES

ESRB	European Systemic Risk Board
ECB	European Central Bank
ESAs	European Supervisory Authorities (comprised of EBA, ESMA, EIOPA)
EBA	European Banking Authority
ESMA	European Securities and Markets Authority
EIOPA	European Insurance and Occupational Pensions Authority
ESFS	European System of Financial Supervision
SEC	US Securities and Exchange Commission
CFTC	US Commodity Futures Trading Commission
FSOC	US Financial Stability Oversight Council
OFR	US Office of Financial Research
FIO	US Federal Insurance Office
FDIC	US Federal Deposit Insurance Corporation
BoE	Bank of England
PRA	UK Prudential Regulation Authority (subsidiary of BoE)
FCA	UK Financial Conduct Authority
FPC	UK Financial Policy Committee (housed in BoE)

OTHER ABBREVIATIONS

CCP	Central counterparty
OTC	Over-the-counter [derivatives]
MMFs	Money Market Funds
SIFI	Systemically important financial institution

I. Background: Global Recognition that Systemic Risk Called for a New Set of Responses

1. The following paragraphs describe the contemporary context in which the legislators and regulators of the financial systems must work. My objective in presenting this information is to facilitate the reader's understanding of the main concerns resulting from the last financial crisis (2007-2008) and the international policy context before examining the specific national and EU regulatory regimes.

The Last Financial Crisis and Systemic Risk

2. As other experts in this file discuss,[5] it is widely recognized that the financial crisis that began in 2007-2008 in North America was substantially a product of unrecognized systemic risk building up within the capital markets. Its impact extended far beyond just the capital markets – and beyond the United States, the jurisdiction at the epicentre of the problems. Subsequent rounds produced bank failures in many jurisdictions, a sovereign debt crisis in Europe, and continued economic stagnation worldwide, demonstrating the breadth and depth of the impact that excessive collective risk-taking in the capital markets can have, and the extent of interconnectedness in contemporary global financial markets.

3. Systemic risk is understood to be of a different order of risk from the risks associated with a loss of a particular investment, and to involve threats to

[5] Notably Andrew Metrick, discussing money market funds, asset-backed commercial paper, the repo market and OTC derivatives (paras 19, 24, 33 and 37) .

the continued existence or functioning of the market as a whole. Systemic risk may build up in highly complex and opaque markets, for highly complex and opaque products, and if not addressed can lead to fast-moving, unpredictable and potentially very damaging contagion and amplification effects that develop at that level.

4. Economists and regulators now understand that contemporary markets behave like *systems*. Systems are characterized by interconnectedness, unpredictability, and fast-moving, multiple round contagion effects.[6] The behavior of markets as systems results from financial innovation, which has broken down the formerly watertight compartments between banks, insurance companies, and the issuers and market participants operating in the capital markets. In each of these sectors, companies can now build and market products that are functionally identical to investors. More fundamentally, financial innovations marketed through the capital markets have "shattered the atom" of conventional financial products, taking apart the component elements of formerly straightforward instruments and refashioning them into new ones.[7] This has altered the relationships

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[6] Two university-based dynamic systemic risk models track systemic risk in real time and publish weekly results: they are the V-Lab at the Volatility Institute, NYU Stern School of Business and the Centre of Risk Management (CRML), Faculté des Hautes Etudes Commercials, Université de Lausanne, respectively at http://vlab.stern.nyu.edu and http://www.crml.ch/index.php?id=4. As the FSB/IMF/BIS report above notes, different national jurisdictions are using different methodologies, including network analysis and contagion modeling, to assess how the system itself, and thus systemic risk, operates. Report, *supra* note 3 at Box 3, p. 20.

[7] Ronald J. Gilson & Charles K. Whitehead, "Deconstructing Equity: Public Ownership, Agency Costs, and Complete Financial Markets" (2008) 108 Colum. L. Rev. 231. The use of derivatives has implications for the day-to-day regulation of the capital markets and for investor rights as well. For example, "empty voting" and "morphable ownership" – that is, the separation of a share's economic interest from its voting rights through the use of equity derivatives – has undermined the traditional link between vote and economic interest that conceptually underpins corporate

between and among institutions, investors, and market participants, introducing layers of complexity and interconnectedness.[8] Complex new chains of institutions and relationships have been introduced, which can circumvent prudential regulatory requirements (moving the products out of the reach of banking regulation and into the securities markets where "shadow banking" occurs), and fuel liquidity-dependent markets that, it turns out, are inherently unstable in times of crisis.[9] While this innovation can

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takeover bid regulation. See Henry T.C. Hu & Bernard Black, "The New Vote Buying: Empty Voting and Hidden (Morphable) Ownership" (2006) 79 S. Cal. L. Rev. 811 and "Empty Voting and Hidden (Morphable) Ownership: Taxonomy, Implications, and Reforms" (2006) 61:3 Bus. Law. 1011. Nor are equity and debt instruments even entirely distinct anymore, thanks to innovations such as "reverse exchange securities" (which create assets that are half share, half bond). See, e.g., Tamar Frankel, "New Financial Assets: Separating Ownership from Control" (2010) 33 Seattle UL Rev 931 at 945- 946.

[8] Professor Steven Schwarcz has discussed the challenge of complexity in the financial markets in a way that helps shed light on what "systemic risk" entails today. He describes complexity in the assets that underlie modern structured financial products — for example, variability in property values, interest rates, mortgage terms, and the creditworthiness of individual mortgagees — overlayered with complexity in the design of the structured products themselves — for example, in the design of synthetic products so complex that adequate disclosure to investors was virtually impossible — and exacerbated by complexity in modern financial markets (including indirect holding systems and the widespread use of complex mathematical risk modeling). Schwarcz examines how these multiple complexities can lead to inappropriate lending standards, failures of disclosure, and a lack of transparency and even of comprehensibility. Perhaps the most difficult problem to manage is that they also create a complex system characterized by intricate causal relationships and a "tight coupling" within credit markets, in which events tend to amplify each other and move rapidly into crisis mode. Steven L Schwarcz, "Regulating Complexity in Financial Markets" (2009) 87 *Wash U L Rev* 211-268.

[9] Financial Services Authority, *The Turner Review: A Regulatory Response to the Global Banking Crisis* (2009) at 16, 21. Securitization is also based on complex mathematical modeling, which can itself be flawed or oversimplified: *ibid.* at 22; see also Erik Gerding, "Code, Crash, and Open Source: The Outsourcing of Financial Regulation to Risk Models and the Global Financial Crisis" (2009) 84 Wash U L Rev 127-198. The FSB has identified shadow banking as a priority and identified some of the main sources of systemic risk within and connected to the shadow banking sector: FSB, *Shadow Banking: Strengthening Oversight and Regulation* (27 October 2011): http://www.fsb.org/wp-content/uploads/r_111027a.pdf?page_moved=1.

create more efficient capital markets for periods of time, it also amplifies risk, makes it harder to track, allows it to coalesce in unanticipated places, and threatens overall systemic stability.[10]

5. Regulators now appreciate that the market as a whole, as well as financial innovation, continues to present new and poorly-understood risks.[11]

6. Aspects of innovative products and practices affect the day-to-day operation of the securities market. Many of the risks created by these new products can be addressed *within* a market, such as through disclosure

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[10] Schwarcz, *supra* note 8. Gilson & Whitehead, *supra* note 7; see also Patricia A McCoy, Andrey D Pavlov & Susan M Wachter, "Systemic Risk through Securitization: The Result of Deregulation and Regulatory Failure" (2009) 41 Conn L Rev 1327.

[11] Two examples of financial innovation that currently present new, poorly understood risk are: (1) High frequency trading (HFT) – algorithmic trading using extremely fast computers, in which firms move in and out of securities within milliseconds or less in order to take advantage of market movements, and was responsible for the May 2010 Flash Crash; and, (2) "Fintech" – tech companies' incursion into the financial markets, seeking to disrupt incumbents' positions using entirely different business models. The best-known critique of HFT is Michael Lewis, *Flash Boys: A Wall Street Revolt* (New York: WW Norton and Co., 2014); see also Harald Malmgren & Mark Stys, "The Marginalizing of the Individual Investor" *The Magazine of International Economic Policy* (2010) at 46; IOSCO, "Regulatory Issues Raised by the Impact of Technological Changes on Market Integrity and Efficiency" (July 2011) at 16; IIROC, Administrative Notice, "IIROC Study of High Frequency Trading – Completion of Final Phase" (December 9, 2015) summarizing the results of their three-phase study, at http://www.iiroc.ca/Documents/2015/1daac865-ab9b-4ba7-9e7e-fd1588db2b5e_en.pdf. On March 6, 2010, starting at approximately 2:45 pm, the S&P 500 dove an unprecedented 900 points. By 4pm closing it had recovered 600 of those points. The crash was precipitated by an exceptionally large (and erroneous) electronic sell order for a derivative that was keyed off the S&P's value. While the order put downward pressure on the S&P's value, it was HFT traders' algorithmic response to it that exacerbated the pressure and created a crash. Andrei Kirilenko et al., "The Flash Crash: The Impact of High Frequency Trading on an Electronic Market" (2011): http://www.cftc.gov/idc/groups/public/@economicanalysis/documents/file/oce_flashcrash0314.pdf. The FSB has begun to examine the systemic risks that may arise from fintech: Letter from Mark Carney, Chairman, FSB to G-20 Finance Ministers and Central Bank Governors (22 February 2016) at 1, 6: http://www.fsb.org/wp-content/uploads/FSB-Chair-letter-to-G-20-Ministers-and-Governors-February-2016.pdf.

requirements (as an investor-facing measure) or the duty of care imposed on registrants (as a business conduct measure). At the same time, these innovative products and practices can also create a different order of risk to the financial system as a whole, which calls for an entirely different set of regulatory responses.

Global Response

7. The awareness of the importance of systemic risk has yielded new levels of international coordination. Globally, regulators' concerns have centered around the clear need for better information (including how risks are developing and how they are transmitted), the need for better coordination across borders, better integration across regulatory silos,[12] and the capacity to move quickly and collectively in urgent situations to avoid contagion, or multiple rounds of spreading contagion. In short, the global policy response has been based on the understanding that management of this risk requires (1) the regulatory capacity to *see and understand* financial markets at the systemic level, and (2) to *respond* quickly and effectively to prevent a potential source of systemic risk from actually having an adverse impact, to contain risk and to avoid contagion. The global community also recognized that in the years leading up to the crisis, certain kinds of products in the capital markets had been under-regulated, non-transparent, and complex,

[12] As noted above, securities issuers, banks and insurers can now offer functionally near-identical products for investors. The traditional financial regulatory structure, however, distinguishes between banks, insurers and securities issuers and subjects each to a different regulatory structure. In the wake of the last financial crisis, regulators realized that cross-border coordination would be essential in future, but also that inter-regulatory coordination and "big picture" integration had to be improved in order to eliminate regulatory gaps.

and that the markets for them had been vectors for transmitting systemic risk. Prominent among these were over-the-counter (OTC) derivatives[13] and securitized products.

8. No single institution or group has jurisdiction over or responsibility for what is now a global financial system. The main players internationally, each of which has either been created post-crisis to address systemic risk and coordination, or which has generated new initiatives in response to the crisis, are:[14]

- **The Group of Twenty (G20)** comprises 19 countries plus the European Union. The first G20 national leaders' summit was convened in November

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[13] OTC derivatives trade "over the counter", meaning that they are bilateral contracts for, usually, quite customized products. They can be contrasted with exchange-traded derivatives, for which a public market, like the Montréal Bourse, exists. Exchanges provide transparency and price discovery functions that the OTC market does not, and as such exchange-traded derivatives do not present the same problems of opacity and the potential buildup of unrecognized systemic risk. As well, because OTC derivatives tend to be customized, they also tend to be highly complex. The market for them is much larger than the market for exchange-traded derivatives. Exchange traded derivatives are standardized, comparable, and transparent by comparison. Within OTC derivatives, the G20 Commitments developed another distinction: "standardized" OTC derivatives are relatively common and quite liquid (e.g., "plain vanilla" interest rate swaps), while non-standardized OTC derivatives are essentially the customized ones. Under the G20 Commitments discussed immediately below, standardized OTC derivatives are now expected to be cleared through a central clearing party, which mitigates the buildup of unrecognized systemic risk within untracked bilateral contracts. A central clearing party interposes itself between buyer and seller of a derivatives contract. Non-standardized OTC derivatives need not be cleared in that way, but trades in them must still be recorded with a trade repository, which at least helps improve transparency. G20 Leaders Statement: The Pittsburgh Summit (September 24-25, 2009): http://www.G-20.utoronto.ca/2009/2009communique0925.html at para. 13.

[14] The list below does not include every potentially relevant international or transnational body. E.g., it does not discuss the Organization for Economic Co-operation and Development (OECD) or the World Bank, since their contributions to the specific problem of systemic risk regulation in the capital markets has been less central. Both sit on the FSB, however.

2008 to coordinate a global response to the financial crisis. Since then, it has become the primary policy forum for international economic cooperation among G20 leaders. At its Pittsburgh summit in 2009, the G20 committed to a series of regulatory reforms (the G20 Commitments) designed to address some of the most glaring regulatory failures leading up to the last financial crisis, such as those in the OTC derivatives markets.[15] The G20 Commitments also recognize the necessity for tools to assess and monitor the buildup of macroprudential risk.[16]

- **Bank for International Settlements (BIS)** (www.bis.org): the BIS is an organization of 60-some members, all central banks. Its membership includes the central banks of all the jurisdictions discussed in this report, including the EU. Its mission is to "serve central banks in their pursuit of monetary and financial stability, to foster international cooperation in those areas and to act as a bank for central banks". The BIS houses the Basel Committee on Banking Supervision (BCBS), whose purpose is to provide "a forum for regular cooperation on banking supervisory matters. Its

[15] G20 Leaders Statement, *supra* note 13. This report concentrates on the parts of the Pittsburgh Summit commitments that deal with international financial regulation: see especially paragraphs 10 to 16 (under the heading, "Strengthening the International Financial Regulatory System"). Other parts of the Leaders Statement address, *inter alia*, energy security, climate change, the IMF and the development banks, and supporting the economically vulnerable.

[16] G20 Leaders Statement, *supra* note 13, par. 12 under the heading, "Strengthening the International Financial Regulatory System".

mandate is to strengthen the regulation, supervision and practices of banks worldwide with the purpose of enhancing financial stability."[17]

- **The Financial Stability Board (FSB)** (www.fsb.org): The G20 established the FSB in 2009 with the mandate to promote international financial stability.[18] It is the main international body tasked with identifying, understanding and coordinating responses to systemic risk, including in the capital markets sector. It sets standards and policies, which its members commit to implementing at the national level. Its members are representatives – generally central bankers, finance ministers, and key regulators – from 25 jurisdictions, as well as international financial institutions and other bodies.[19] It has a secretariat (i.e., a professional staff) housed within the BIS. The FSB describes its work in terms of a three stage process: identifying systemic risk in the financial sector, helping to develop and promote the implementation of effective regulatory responses to it, and overseeing and monitoring implementation of those responses. It designates "key standards for sound financial systems",[20] produces highly

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[17] Bank for International Settlements, "About the Basel Committee," September 30, 2015, available at http://www.bis.org/bcbs/about.htm. Canada, through OSFI, began adopting the Committee's latest version of capital rules for banks (Basel III) in 2013 and progress is ongoing.

[18] Both the G20 and the FSB had their origins in the pre-financial crisis era, but both were substantially modified in structure, membership and form in 2009. Their pre-crisis history is omitted here.

[19] Members from relevant jurisdictions include leaders of OSFI, the Bank of Canada and the Department of Finance (Canada), the Treasury, Bank of England and FCA (UK), the Federal Reserve, Treasury and SEC (US), and the ECB. IOSCO is among its international members, as are the BIS and its Basel Committee, the OECD, World Bank, and IMF.

[20] These standards are developed by other international standard setters – the IMF, the Basel Committee, and IOSCO among others – and FSB designation indicates that they are "broadly

influential research reports, works cooperatively with other institutions including the BIS, IMF and IOSCO, develops policy specifically concerned with global financial stability and systemic risk, conducts "peer reviews" of member states' financial stability and their implementation of international standards and FSB-recognized policies,[21] and delivers progress reports to the G20. Among its most important reports are its 2009 report to the G20 on assessing the systemic importance of financial institutions, markets and instruments; and its 2011 report and recommendations for strengthening oversight and regulation in the shadow banking sector.[22]

- **International Organization of Securities Commissions (IOSCO)** (www.iosco.org): IOSCO's membership comprises the securities regulators in more than 115 jurisdictions[23]. It seeks to set global standards within the securities sector, provides technical assistance, education, training and

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accepted as representing minimum requirements for good practice that countries are encouraged to meet or exceed". See FSB, Key Standards for Sound Financial Systems, http://www.fsb.org/what-we-do/about-the-compendium-of-standards/key_standards/.

[21] Canada's peer review notes that "establishing a single national securities regulator would bring clear economic benefits – a simpler regulatory infrastructure, easier coordination and information sharing in the event of market distress, and improved cross-border cooperation. The IMF and the OECD have both recommended this " (going on to describe the *Reference*). FSB, Peer Review of Canada: Review Report (30 January 2012) at page 7: http://www.fsb.org/wp-content/uploads/r_120130.pdf.

[22] FSB/IMF/BIS, *Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations*, (2009), *supra* note 3; FSB, *Shadow Banking: Strengthening Oversight and Regulation* (2011), *supra* note 9.

[23] See https://www.iosco.org/about/?subsection=membership&memid=1. This includes four out of ten of the Canadian provinces. Canada has three votes, not four, since the number of votes for subdivisions of national units is capped at three: http://www.iosco.org/about/?subsection=becoming_a_member.

research to its members, and coordinates with other international organizations on matters of shared interest. It does not have a substantial permanent staff. Its most important contributions for present purposes are a set of standards, the Objectives and Principles of Securities Regulation (substantially revised in June 2010), which have been endorsed by the G20, the FSB and the IMF; a set of principles for financial market infrastructures, jointly produced with the BIS; and a set of standards for financial benchmarks, also endorsed by the G20 and the FSB.[24]

- **International Monetary Fund (IMF)** (www.imf.org): the IMF is an organization of 188 countries, working to "foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world". The IMF operates at the level of nation states, e.g., providing loans to member countries and providing technical assistance. Its work is less relevant to systemic risk in the capital markets, but it works alongside the FSB and other organizations in filling data gaps. With the World Bank, it also evaluates member countries' financial systems (including banks, securities markets, pension and mutual funds, insurers, market infrastructures, central bank, and regulatory and supervisory authorities). It assessed Canada's financial stability in February 2014.[25]

[24] IOSCO, "Objectives and Principles of Securities Regulation" (June 2010), https://www.iosco.org/library/pubdocs/pdf/IOSCOPD323.pdf; BIS/IOSCO "Principles for Financial Market Infrastructures" (April 2012), http://www.bis.org/cpmi/publ/d101a.pdf; IOSCO, "Principles for Financial Benchmarks" (July 2013): http://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf.

[25] Their first key recommendation is discussed below, *infra* at note 50 et seq.

9. Multiple entities with different membership and structure all to some degree aim to ensure the stability and robustness of the global financial system, within which capital markets, banking, insurance, and policy are intertwined. While the Financial Stability Board (FSB) is the single most important policy-oriented body tasked with identifying, understanding and coordinating responses to systemic risk, it has regularly coauthored reports with other organizations. Thus, even when looking only at the capital markets sector, it would present an incomplete picture to rely primarily on IOSCO alone.

<u>Reforms to Regulatory Structures at the National and EU Levels</u>

10. Since the last financial crisis, many countries have adopted domestic regulatory reform, in relation to both regulatory content and governance structure, to meet international commitments and incorporate lessons learned from the crisis with respect to systemic risk. This report considers the regulatory regime in the US, the UK, and the EU. A more detailed explanation of the regulatory structure of each regime, as well as a diagram visually representing their current financial market regulatory structure, is found in Appendix A.

11. Every jurisdiction studied here, except Canada as it is now, has (1) a systemic risk oversight and regulatory structure that spans financial sectors (banking, insurance and capital markets), and (2) a set of tools capable of detecting, monitoring, and preventing systemic risk in their national capital markets.

12. Some reforms by the comparator jurisdictions were more extensive – notably, the UK. As well, reforms in each comparator jurisdiction were necessarily different, reflecting differences in legacy regulatory structures.

13. However, none of these jurisdictions has taken the approach of addressing systemic risk going forward by focusing more on capital markets regulation on its own – using the same tools as ever – within the parameters of its traditional jurisdiction. The responses in these jurisdictions to the systemic risk that arose in the capital markets and caused the financial crisis, even though it had arisen originally in the capital markets, was not to conclude that capital markets regulators had simply failed to discharge their responsibilities. In every jurisdiction, systemic risk regulation post-crisis has been understood to require a different regulatory structure and a different set of tools than simply those that existed to answer to investor protection and efficient market priorities in the capital markets. Each of the jurisdictions discussed here turned its mind to ensuring that it had in place a regulatory structure with the ability to respond quickly, proactively, effectively and in a coordinated fashion at the national level (or at the supranational level for the EU).

14. The following are the common regulatory reforms taken by these jurisdictions.

15. *Addressing shortcomings or gaps in existing regulatory structures*, *in terms of systemic risk regulation in particular, by* ***closing regulatory gaps***:

- Across jurisdictions: implementation specific measures, such as central clearing and trade repository reporting for OTC derivatives, as agreed to by the G-20;

- The UK overhauled its financial regulatory structure. In response to a perception that capital markets priorities had swamped prudential regulatory priorities within a unified financial regulator, that unified regulator was abolished and two new ones created. The UK adopted a version of "twin peaks" regulatory structure, which allocates regulatory jurisdiction primarily along functional lines rather than, as was traditionally the case, along industry lines. The UK adopted a version of "twin peaks" regulatory structure under which one regulator, the Prudential Regulatory Authority (PRA), is responsible for prudential regulation of systemically important institutions across all of banking, capital markets and insurance. A separate regulator, the Financial Conduct Authority (FCA), is responsible for investor protection, business conduct, market integrity and competition across all of banking, capital markets and insurance (as well as for prudential regulation of smaller, non systemically important institutions);[26]

- Through the Dodd-Frank Act (Dodd-Frank),[27] the US clarified the division of responsibilities between the SEC and the CFTC, set out the role of the Federal Reserve in regulating systemically important financial companies, and enhanced oversight of the OTC derivatives markets. The fact that shadow banks (non-bank financial institutions operating in the capital markets) were not subject to prudential regulation was addressed by creating FSOC designation, as discussed below.

[26] The term "business conduct" or "market conduct" in the capital markets are generally understood to refer to professional regulation of registrants, meaning professionals operating in the industry (especially dealers and advisors), to ensure that they maintain sound business practices and appropriate prudential standards, that conflicts of interest are mitigated, that they understand their clients' needs and what would be an appropriate investment for them, and that they do not take advantage of the informational asymmetry they possess relative to their clients. In discussing business conduct regulation beyond capital markets (i.e., in banking and insurance), the term should be understood to mean primarily prudential requirements.

[27] Dodd-Frank Wall Street Reform and Consumer Protection Act, 12 USC 5301 (2010), s 113.

- In the EU, where the financial crisis evolved into the 2010/11 Eurozone debt crisis, "Member States tried to address the systemic fragility of their banking systems through national policy tools, but it became clear that, for those countries [in the Eurozone] that shared a currency and were therefore more interdependent, more had to be done." [28] Reforms included addressing gaps in banking oversight by creating a Banking Union (which applies to Eurozone countries and can be joined by non-Eurozone EU countries). This involved establishing the Single Supervisory Mechanism, which grants the European Central Bank a strong supervisory role for financial stability of all banks in the Eurozone.

16. ***New regulatory structures*** *to specifically address systemic risk, notwithstanding that existing regulators in some of these jurisdictions already had jurisdiction over some aspects of systemic risk*:

- Dodd-Frank established a new systemic risk oversight body, the Financial Stability Oversight Council (FSOC). The US overlaid FSOC over its competent federal regulators that already possess jurisdiction over systemic risk in the capital markets (Securities Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC)). The US also created a new Office of Financial Research (OFR) to support FSOC, and a new Federal Insurance Office (FIO) concerned with systemic risk in the insurance sector.

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[28] See: http://ec.europa.eu/information_society/newsroom/cf/fisma/item-detail.cfm?item_id=20758&newsletter_id=166&lang=en and http://ec.europa.eu/finance/general-policy/banking-union/index_en.htm.

- In the UK, the BoE is now responsible for overseeing UK financial stability as a whole, including through its subsidiary the PRA, which prudentially regulates systemically important financial firms, and through the Financial Policy Committee (FPC), an independent subcommittee of the Court of Directors of the Bank of England (BoE) with responsibility for identifying, monitoring and responding to systemic risk.

- The EU established a new overarching European System of Financial Supervision (ESFS), which includes the new European Systemic Risk Board (ESRB), and three sectoral European Supervisory Authorities (ESAs) with broad systemic risk powers in the form of a "specialized and ongoing capacity to respond effectively to the materialization of systemic risks".[29]

17. *Ensuring the capacity to proactively and effectively* ***identify systemic risk*** *problems across its financial sectors*. *This has mainly been done by creating new research capacity and new systemic risk oversight bodies as discussed above*:

- In the US, the OFR collects information on financial firms from regulators and monitors the financial system to identify potential systemic risks. The SEC also created a new Economic and Risk Analysis Division;

- In the UK, the FPC is responsible for monitoring the stability of the UK financial system and identifying and assessing systemic risks, and for preparing semi-annual financial stability reports.

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[29] European Parliament and Council, Regulation (EU) No 1095/2010 establishing a European Supervisory Authority (European Securities and Markets Authority), Article 24(1), online: https://www.esrb.europa.eu/shared/pdf/ESRB-en.pdf?717d13c66b5166d0a0a792b400ea0d69

- In the EU, the relevant functions of the European Systemic Risk Board (ESRB) concerning systemic risk include data collection, sharing information with EU-level and national bodies, and collaborating with the ESAs to identify and measure systemic risk, identifying and prioritizing risks.

18. *Ensuring the capacity to proactively and* ***effectively respond to systemic risk*** *problems across its financial sectors*:

- In the US, the SEC and CFTC are the primary investor protection and business conduct regulators for the vast majority of capital markets issues and market participants. They can both regulate US capital markets "all the way up" with respect to these concerns, including with respect to systemic risk.[30] Now, the US FSOC can also designate financial companies, including non-bank institutions operating in the capital markets, as "systemically important financial institutions" (SIFIs). SIFI designation results in increased regulation and supervision by the Federal Reserve, and requires the institution to adhere to heightened prudential standards. This ensures that systemically important non-banks are also subject to prudential regulation, and it fills a gap that existed previously.

- In the UK, the BoE directly prudentially regulates essential financial market infrastructure, such as clearing houses, settlement systems and payment systems. In relation to macro-prudential matters, the FPC has the authority to give directions to the FCA and PRA requiring them to exercise their

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[30] They are "primary financial regulatory agenc[ies]" as defined in Dodd Frank §5301(12). For an example of the SEC seeking to use what I am calling the top end of its jurisdiction, see the discussion of the asset management industry, *infra* at note 44.

functions in order to implement a macroprudential measure.[31] The PRA and/or FCA must comply with the FPC's directions as soon as reasonably practicable.[32] The FCP also has the power to make recommendations to the FCA, PRA, to the Treasury, within the Bank or to any persons, and the FCA and PRA must either comply with the recommendation, or explain its reason for not complying.[33] In certain circumstances, the PRA can exercise a veto on the FCA: it may instruct the FCA to refrain from exercising its regulatory authority, if the PRA deems that that action may threaten the stability of the UK financial system or cause a financial institution to fail, whose failure would have adversely affect the UK financial system.[34]

- The European Systemic Risk Board (ESRB) can issue warnings and recommendations (to the Union, any member state, or any relevant EU or member state regulator), which trigger an "act or explain" mechanism.[35]

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[31] *Financial Services Act 2012* ss. 9H. HM Treasury, in consultation with either the FPC or the BoE, prescribes macro-prudential measures, which form the basis of the FPC's directions. *Ibid.*at s. 9L. The FPC also prepares policy statements, produces reports, and may make recommendations within the BoE or to HM Treasury on select matters relating to its mandate: *ibid.* ss. 9O, 9P, 9W.

[32] *Ibid.*, s. 9I.

[33] *Ibid*., s. 9Q(3).

[34] *Ibid*.,, s. 3I.

[35] For example, the ESRB has recommended to member states that they designate an authority entrusted with conduct of macroprudential policy and equip it with sufficient powers, which the ESRB describes. ESRB, Recommendation on the macro-prudential mandate of national authorities", ESRB/2011/3, online: http://www.esrb.europa.eu/pub/pdf/ESRB_Recommendation_on_National_Macroprudential_Mandates.pdf?87d545ebc9fe76b76b6c545b6bad218c. Following on the act or comply provisions, the ESRB issued a detailed follow-up report assessing countries' compliance with the recommendation, and issuing countries final grades (showing that 24 of 29 countries were largely

19. *Ensuring* ***coordination*** *between and within jurisdictions and regulators:*

- FSOC is responsible for facilitating information sharing and coordination among financial regulators;
- Each of the UK FCA and PRA has the duty to coordinate the exercise of its functions with the other, and must co-operate with the BoE with regard to financial stability;[36]
- The overarching European System of Financial Supervision (ESFS) facilitates coordination across financial sectors, and between the EU and national levels.

Financial Regulation in Canada

20. Canada maintains a regulatory regime with jurisdiction divided along the traditional industry or entity lines unlike, for example, the UK, which has moved to a functionally-oriented division of responsibilities. The three main sectors of regulation are: (1) Banks, which are federally regulated by OSFI; (2) the day-to-day regulation of the capital markets as carried out by provincial and territorial securities regulators; and, (3) insurance, which is regulated at both the federal and provincial level.

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or fully compliant by the deadline): ESRB Follow-up Report – Overall Assessment (June 2014), online: http://www.esrb.europa.eu/pub/pdf/recommendations/2014/ESRB_2014.en.pdf?b0f13f86c2fe4855025f70a23ab0a258.

[36] *Financial Services Act*, *supra* note 31 at ss. 3D, 3Q.

21. Canada also has a Senior Advisory Committee (SAC), a non-statutory consultative forum for financial sector policy issues, including financial stability and systemic vulnerabilities. SAC can coordinate among all the federal-level entities. A more complete description of Canada's regulatory scheme and a representation by diagram is in Appendix B.

22. In comparing Canada to the UK, the US and the EU, it is apparent that each jurisdiction contains certain features and functions in common, with the notable absence in Canada of a systemic risk regulator with responsibility for the capital markets. This is represented by Table 1 below.

Table 1: Financial Regulatory Bodies Relevant to Systemic Risk[37]

	Canada	**US**	**UK**	**EU**
Central Bank Sets monetary policy, controls money supply & inflation, acts as lender of last resort. Independent of political actors	Bank of Canada (BoC)	Federal Reserve System	Bank of England (BoE)	European Central Bank (ECB) within Eurozone and member state central banks Member state central banks beyond Eurozone

[37] Financial regulation has other components not discussed here, since they are less directly connected to systemic risk regulation. E.g., this table also does not specifically discuss credit union regulation or pension fund regulation, or other consumer financial protection agencies (e.g., the Consumer Financial Protection Bureau in the US or the Financial Consumer Agency of Canada). New initiatives for orderly resolution of systemically important financial institutions are also not covered. Note as well that this table omits considerable detail, including e.g., that depository insurance is broader in scope in some jurisdictions (the UK) than in others (Canada and the US).

	Canada	US	UK	EU
Financial Policy Body (as relevant to this report) Sets fiscal and economic policy	Department of Finance	Department of the Treasury	Her Majesty's Treasury	None at EU level Coordination among member state economics and finance ministers through EU Economic and Financial Affairs Council (informal body)[38]
Depository Insurance Guarantees depositors' deposits in identified institutions, generally banks	Canada Deposit Insurance Corporation (CDIC)	Federal Deposit Insurance Corporation (FDIC)	Financial Services Compensation Scheme	All EU member states have depository insurance schemes, harmonized in accordance with EU Directive on Deposit Guarantee Schemes 94/19/EC
Coordinating / Oversight Body for	Senior Advisory Committee	Financial Stability Oversight Council (FSOC) makes	Bank of England (BoE)'s Financial Policy Committee	European Systemic Risk Board (ESRB)

[38] One of the persistent shortcomings within EU financial regulation is that it is an economic and monetary union (through the ECB and, for Eurozone members, based on the Euro) without being a fiscal union – i.e., there is no EU- or Eurozone-level finance ministry equivalent. Among other problems, the disconnect between single currency and potentially lax domestic fiscal policy can lead to sovereign debt crises, like the ones in Greece, Ireland, Portugal and Spain (and thus the Eurozone generally). Since 2012, the EU has made strides toward greater EU coordination, and surveillance of Eurozone member state budgetary processes, in an effort to address this considerable gap.

	Canada	US	UK	EU
Addressing Systemic Risk Across Sectors	(SAC)[39] coordinates among regulators but has no capital markets representative	recommendations, designates bank and non-bank entities as systemically important, coordinates among relevant regulators and institutions	(FPC) plays additional role in generating directions and recommendations, ensuring PRA and FCA are coordinating	generates systemic risk warnings and makes recommendations
Regulator with Responsibility for Systemic Risk in Capital Markets Some may also cover banking, insurance	None CMSA Authority *[proposed]*	Primarily Securities and Exchange Commission (SEC) and Commodity Futures Trading Commission (CFTC)	BoE responsible for overall systemic stability Prudential Regulatory Authority (PRA) and Financial Conduct Authority (FCA) are responsible regulators	European Supervisory Authorities (ESAs)[40] and national regulators ECB and national central banks (monitoring)[41]

[39] Another committee, the Financial Institutions Supervisory Committee (FISC), has the same membership as SAC but focuses more directly on ensuring federal coordination and communication with regard to financial institution supervision. SAC is a discussion forum for financial sector policy issues, including financial stability and systemic vulnerabilities. See IMF, Canada Country Report at pp. 15-16, https://www.imf.org/external/pubs/ft/scr/2014/cr1470.pdf

[40] The ESAs are the three Union-level bodies with jurisdiction over banking, securities/derivatives and insurance respectively: the European Banking Authority (EBA), the European Securities and Markets Authority (ESMA) and the European Insurance and Occupational Pensions Authority (EIOPA).

[41] Under the Single Supervisory Mechanism (SSM), as of November 2014, banks deemed "significant" are supervised directly by the ECB. The SSM is mandatory for all Eurozone member state banks and voluntary for other non-Eurozone EU banks.

<table>
<tr><th></th><th>Canada</th><th>US</th><th>UK</th><th>EU</th></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Securities Regulator(s)

Oversees markets for securities and derivatives</td><td>Provincial securities regulators (day-to-day regulation of securities)

Coordination through Canadian Securities Administrators (CSA) (informal body, re day-to-day regulation of securities)</td><td>Primarily SEC and CFTC

State-level regulators for intrastate and some exempt market distributions</td><td rowspan="2">PRA and FCA jointly for all of banking, securities and insurance</td><td>European Securities and Markets Authority (ESMA) and member state securities authorities</td></tr>
<tr><td>Banking Regulator

Oversees banks</td><td>Office of the Superintendent of Financial Institutions (OSFI)</td><td>Primarily Federal Reserve System

FDIC supervises state-chartered banks not part of the Reserve system</td><td>European Banking Authority (EBA) for rulebook

ECB (for single supervisory mechanism), assisted by banking union member state central banks, within Eurozone

Member state banking authorities beyond Eurozone</td></tr>
</table>

	Canada	**US**	**UK**	**EU**
Insurance Regulator(s) Oversees insurers	OSFI (generally prudential regulation of federally regulated insurers) Provincial insurance regulators (generally market conduct regulation – licensing and marketing) Coordination through Canadian Council of Insurance Regulators (informal body)[42]	State-level regulators Coordination through National Association of Insurance Supervisors (informal body) Subject to federal monitoring by Federal Insurance Office (FIO) under Dodd-Frank Act Title V		European Insurance & Occupational Pensions Authority (EIOPA) and member state insurance authorities

II. Comparing the Proposed *CMSA* with International Standards and Transnational Regulatory Structures

23. The proposed CMSA addresses systemic risk in capital markets in a manner that is consistent with international policy guidance and with post-

[42] CCIR members are the provincial/territorial insurance regulators. OSFI is an “associate member”: http://www.ccir-ccrra.org/en/about/members.asp.

crisis legislative developments in the other jurisdictions examined above, once necessary differences due to each jurisdiction's unique institutional and constitutional arrangements are taken into account.

New Regulatory Structure

24. The proposed *CMSA* would create within the same regulator a data collection capacity, and a regulator on systemic risk in the Canadian capital markets. Relative to the changes made in the other jurisdictions discussed in this report, the changes proposed in the *CMSA* are relatively minimal, and generally of a gap-filling variety. The *CMSA* would fill a gap around systemic risk *in the capital markets*, providing oversight and the regulatory capacity to address systemic risk in those markets only.

25. The proposed *CMSA* would not create a broad systemic risk oversight body over the entire financial market, as these other jurisdictions have done (US FSOC, UK FPC, and EU ESRB). Nor would it establish a multi-agency forum for discussing, responding to and coordinating action with respect to systemic risk across financial sectors. Canada's Senior Advisory Committee (SAC) already serves that function, albeit presently with no representation from a capital markets regulator, which drastically limits its range.[43] The proposed *CMSA* would provide for oversight and regulation in the capital markets only, contingent on a finding of systemic risk or systemic

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[43] It is expected that the new Authority (CMRA) with the statutory mandate to address systemic risk in the Canadian capital markets, would acquire a seat on SAC. See Government of Canada, Budget 2015, Chapter 4.1, http://www.budget.gc.ca/2015/docs/plan/ch4-1-eng.html. ("The Senior Advisory Committee supports the provision of advice on a broad range of issues related to the stability of the Canadian financial system and legislative, regulatory, and policy issues affecting the sector. It is expected that the Capital Markets Regulatory Authority will contribute to SAC deliberations after it has begun operating.")

importance, and with a requirement to consider what other regulation is already in place.

26. In terms of regulatory capacity concerning systemic risk, the Authority would exercise powers similar to powers that national capital markets regulators in the US, the UK, and the EU already have. Specifically, the proposed *CMSA* would create a regulator with the capacity to manage systemic risk in the capital markets in a way that, post-crisis, the US SEC, CFTC and Federal Reserve can already substantially do;[44] that the UK FCA and PRA can already substantially do;[45] and that member state authorities and

[44] Dodd-Frank allows FSOC to determine that a nonbank financial company should be subject to prudential supervision by the Federal Reserve, in order to address systemic risk. For their part, the SEC and CFTC are responsible for discharging G20 Commitments relating to trade repositories and central counterparty clearing of derivatives as discussed below, as well as several other aspects not discussed in detail here: see Mary Jo White, Testimony on "Mitigating Systemic Risk in the Financial Markets through Wall Street Reforms" (30 July 2013) at https://www.sec.gov/News/Testimony/Detail/Testimony/1370539733678. The SEC has issued several proposed rules in the last year seeking to impose additional requirements on the asset management industry as well: US FSOC, "Update on Review of Asset Management Products and Activities" (18 April 2016) at https://www.treasury.gov/initiatives/fsoc/news/Documents/FSOC%20Update%20on%20Review%20of%20Asset%20Management%20Products%20and%20Activities.pdf at p. 2.

[45] PRA regulates significant financial institutions ("PRA-authorised persons") for prudential safety and soundness. Its general objective is "promoting the safety and soundness of PRA-authorised persons" but given that PRA-authorised persons are systemically significant, that objective is to be advanced primarily by seeking to ensure that their business "is carried on in a way which avoids any adverse effect on the stability of the UK financial system", and seeking to minimize the adverse effect that their failure could have on "the stability of the UK financial system". *Financial Services Act of 2012* s. 2B(2), (3). The FCA also plays a role in regard to systemic risk through its "integrity objective," which is "protecting and enhancing the integrity of the UK financial system" and which includes the UK financial system's "soundness, stability and resilience": *Financial Services Act of 2012* s. 1D(1), (2).

European supervisory authorities can already substantially do.[46] Overarching bodies in these jurisdictions – FSOC, the FPC and the ESRB respectively – can exercise regulatory powers to ensure that systemic risk concerns are addressed, with the primary regulators listed above ultimately applying the appropriate regulation to the market.[47]

Definitions of Systemic Risk

27. Under the *CMSA*, the central definition on which the Authority's data collection and regulatory powers rest is *systemic risk to capital markets*, defined in s. 3:

"In this Act, systemic risk related to capital markets means a threat to the stability of Canada's financial system that originates in, is transmitted through or impairs capital markets and that has the potential to have a material adverse effect on the Canadian economy."

28. This definition is in line with definitions of systemic risk developed by international bodies, and the other jurisdictions studied here.[48]

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[46] See, e.g., the ESRB recommendations on member state macroprudential regulation, *supra* note 35.

[47] FSOC's, the FPC's and the ESRB's powers are regulatory in the sense that those bodies have meaningful powers vis-a-vis the primary regulators, although they do not directly regulate financial market participants.

[48] IMF et al., *Guidance*, *supra* note 3; IOSCO, "Risk Identification and Assessment Methodologies for Securities Regulators", at pp. 7-8 ("Systemic risk refers to the potential that an event, action, or series of events or actions will have a widespread adverse effect on the financial system and, in consequence, on the economy. Systemic risk, in the context of securities markets is not limited to sudden catastrophic events; it may also take the form of a more gradual erosion of market trust."); Dodd-Frank, *supra* note 27 at § 113(a)(1) (determining that a nonbank financial

Data Collection in Relation to Systemic Risk

29. As a joint FSB/IMF report to the G20 observed in 2009, "the recent crisis has reaffirmed an old lesson—good data and good analysis are the lifeblood of effective surveillance and policy responses at both the national and international levels".[49]

30. In its 2014 report on the stability of Canada's financial sector, the IMF's first key recommendation, which it recommended be implemented in the short term (i.e., within one to three years), was that Canada "[e]xpand financial sector data collection and dissemination with a view to enhancing coverage,

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company should be subject to prudential supervision where "material financial distress at the U.S. nonbank financial company, or the nature, scope, size, scale, concentration, interconnectedness, or mix of the activities of the U.S. nonbank financial company, could pose a threat to the financial stability of the United States"); US FSOC, *Annual Report* (July 2011), p. 3 (""Although there is no one way to define systemic risk, all definitions attempt to capture risks to the stability of the financial system as a whole, as oppose to the risk facing individual financial institutions or market participants," and "[a] stable financial system should not be the source of, nor amplify the impact of, shocks"); *Financial Services Act 2012* (c. 21) Art. 9C(5), (6) (""systemic risk" means a risk to the stability of the UK financial system as a whole or of a significant part of that system" "whehter the risk arises in the United Kingdom or elsewhere"); Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board ("*Systemic risk* means a risk of disruption in the financial system with the potential to have serious negative consequences for the internal market and the real economy. All types of financial intermediaries, markets and infrastructure may be potentially systematically important to some degree. *Financial system* means all financial institutions, markets, products and market infrastructures").

[49] FSB/IMF, "The Financial Crisis and Information Gaps", Report to the G-20 Finance Ministers and Central Bank Governors (29 October 2009) at 4: http://www.fsb.org/wp-content/uploads/r_091029.pdf

regularity, and availability of time-series to facilitate analysis."[50] Pointing to IOSCO Principles 6 and 7, which deal with systemic risk, the report noted:

"No single body has the mandate for macroprudential oversight nor do any of the oversight committees [identifying FISC, SAC, the Heads of Agencies Committee and the CSA Systemic Risk Committee] have the membership that would allow for a comprehensive view of systemic risk across all financial institutions and markets in Canada. In particular, risks in securities markets, including linkages with other parts of the financial system, are not systematically captured at a national level. Moreover, a unified approach to analyzing risks that stem both from federally and provincially regulated institutions and markets is lacking. No-one has a mandate to collect and analyze data for the financial system—federally and provincially regulated entities, unregulated entities, and markets—as a whole. Consequently, a complete set of information is not collected on a systematic and regular basis, and there are gaps in understanding certain segments of the markets (e.g. holding company credit intermediation, some pension fund activities, securities markets) and the interconnectedness among different areas of the financial universe."[51]

31. In the language of these recommendations, the proposed *CMSA* would not create a "single body [with the] mandate for macroprudential oversight".

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[50] IMF, IMF Country Report No. 14/29, "Canada: Financial Sector Stability Assessment" (February 2014) at Table 1, "2013 FSAP Update – Key Recommendations" Table 1 at p. 7: https://www.imf.org/external/pubs/ft/scr/2014/cr1429.pdf

[51] *Ibid.* (IMF country report) at para 56: https://www.imf.org/external/pubs/ft/scr/2014/cr1429.pdf

However, it would create a systemic risk regulator in the capital markets whose subsequent membership on SAC would "allow for a comprehensive view of systemic risk across all financial institutions and markets in Canada." The proposed *CMSA* would give the proposed Authority the mandate to collect and analyze data in the capital markets,[52] filling an identified "gap in understanding" and making it possible for Canada to develop a "complete set of information collected on a systematic and regular basis" on its financial system.

32. These data collection powers with respect to systemic risk in the capital markets under the CMSA are comparable to those exercised by the OFR in the US,[53] the FPC in the UK,[54] and ESRB in the EU.[55] The main difference is that the data collection powers of those bodies reach beyond systemic risk in capital markets, to extend to data collection *across* the capital markets, banking, and insurance sectors.

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[52] Part 1 of the *CMSA*, "Information Collection and Disclosure", gives the Authority duties and powers with respect to information collection and disclosure. Those powers are circumscribed by reference to the Act's purpose, and with a view to whether the information or records are already available elsewhere.

[53] Dodd-Frank Title I Subtitle B establishes the Office of Financial Research, with a mandate to support FSOC and other agencies by, *inter alia*, collecting data, standardizing how data is reported and collected, performing research, and sharing data and writing reports. Dodd-Frank Act, s. 153 (HR 4173) OFR may subpoena data from financial companies where that data is required to carry out OFR's functions. *Ibid.,* s. 153(f). FSOC may collect information itself too per s. 112(a)(2)(A).

[54] The FPC is responsible for "monitoring the stability of the UK financial system with a view to identifying and assessing systemic risks" and for preparing semi-annual financial stability reports: *Financial Services Act*, s. 9G(1)(a), (d); see also ss. 9C(2), 9W.

[55] EU Regulation No 1095/2010 at paras. 10, 11, 15.

Designation as Systemically Important or Risky: Factors

33. The proposed Authority (CMRA) is comparable to the US FSOC to the degree that both can designate things as systemically important once they pass a certain (qualitative or quantitative) systemic importance threshold. Under the CMSA, that designation may be made for *products, practices and benchmarks*. This approach focuses on the systemic risk arising within markets, rather than on identifying systemically important *entities* as FSOC primarily does. The focus on *products, practices and benchmarks* reflects the current understanding of systemic risk, which is not necessarily housed in particular entities so much as it is housed in the markets and networks they share.[56]

34. Whenever the Authority is considering designating a benchmark, product or practice as systemically important or risky, one of the factors it must take into account is whether and how the benchmark, product, or practice is already regulated.[57]

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[56] This understanding is also developing in jurisdictions, like the US, that until recently have focused primarily on entity-level designations. A focus on products and activities, rather than entities, as the proper focus of systemic risk regulation has gained traction with respect to the asset management (i.e., investment fund) industry. For a review of recent developments in the US see, e.g., FSOC, "Update", *supra* note 44; Morrison & Foerster LLP, "Possible Worlds Versus Probable Worlds – the Metaphysics of Systemic Risk: FSOC Revisits Asset Managers" (26 April 2016) at https://www.lexology.com/library/detail.aspx?g=53907905-987f-4523-bc1f-c260ac826730; Barney Jopson, Stephen Foley & Caroline Binham, "Fund managers to escape 'systemic' label" *Financial Times* (14 July 2015) at http://www.ft.com/intl/cms/s/0/4e9d566e-2999-11e5-8613-e7aedbb7bdb7.html#axzz47XIGxtkW (citing an "important change in the trajectory of post-crisis regulation" toward focusing on markets rather than institutions).

[57] CMSA, ss. 18(2)(g), 20(2)(h), 22(2)(f).

35. The other factors in the proposed *CMSA* for designating products, practices or benchmarks as systemically risky or systemically important are compatible with national and international understandings of how systemic risk arises and how to regulate it.

36. For example, in designating a benchmark as systemically important, the *CMSA* requires the Authority to consider a series of factors that can be summarized as looking at the benchmark's systemic significance to the capital markets, how broadly the benchmark is relied upon, and the process by which the benchmark is determined. As the FSB notes, benchmarks are essential components of financial infrastructure, and their integrity is essential to market functioning.[58] (It should also be pointed out that provincial securities regulators do not regulate benchmarks at all, and OSFI

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[58] In particular, they are important because benchmarks, and particularly the London Inter-Bank Offered Rate (LIBOR), EURIBOR and TIBOR are the reference points for pricing an enormous volume and range of other financial contracts, as well as commercial contracts and valuation calculations. Moreover, there are no immediately obvious alternatives to existing benchmarks. FSB, *Reforming Major Interest Rate Benchmarks* (22 July 2014), http://www.fsb.org/wp-content/uploads/r_140722.pdf at 3; FSB, *Final Report of the Market Participants Group on Reforming Interest Rate Benchmarks* (22 July 2014): http://www.fsb.org/wp-content/uploads/r_140722b.pdf. As part of the post-scandal reforms to LIBOR in the UK, and in view of the limited data available to underpin its benchmark, Canadian dollar-denominated LIBOR rates were terminated: Anthony Browne, "Libor now has a new administrator – but our reforms have gone much further" (11 July 2013) http://www.cityam.com/article/libor-now-has-new-administrator-our-reforms-have-gone-much-further. However, Canada continues to use (and as result of the C$ removal from LIBOR may rely more heavily on) its two domestic benchmarks, the Canadian Dollar Offered Rate (CDOR) and the Canadian Overnight Repo Rate (CORRA). As of October 2015, CDOR was the benchmark for setting interest payments on approximately USD$9 trillion of interest rate swaps, and close to C$1 trillion in certain other kinds of derivatives: http://financial.thomsonreuters.com/content/dam/openweb/documents/pdf/financial/canadian-benchmarks-iosco-principles.pdf at 9. A wide range of other instruments, including residential mortgage rates, is also keyed to this benchmark.

only partially regulates them,[59] so this is a particularly obvious gap in the Canadian regulatory scheme.)

37. In designating a class of securities or derivatives to be systemically important, as well, the Authority must consider, effectively, the systemic significance of the products themselves (or the markets for those products), including their complexity, interconnectedness, level of standardization, volume and value of the market for them, and extent to which trading in them could transmit risks through the system. In designating a practice to be systemically risky, the Authority must consider, effectively, the systemic effect of engaging in a practice (e.g., whether it has the effect of concentrating risk in non-transparent spaces, whether it relies on characteristics that are known to be risky, such as maturity transformation, and the extent to which it could transmit risks through the system.

38. The CMSA criteria – complexity, interconnectedness, size, concentration, maturity transformation – closely reflect the indicia of systemic risk the FSB,

[59] Benchmark-setting involves two sets of parties: the *submitters*, which are the banks that provide underlying information; and the *administrator*, which translates that information into an actual benchmark. OSFI acquired oversight of banks' activities in relation to benchmarks through amendments to the *Bank Act* in July 2014: http://laws-lois.justice.gc.ca/eng/annualstatutes/2014_20/page-34.html. However, CDOR's and CORRA's *administrator*, Thomson Reuters, is not a bank and is not subject to OSFI's oversight. As the Canadian Bankers Association has noted, "[a]s outlined in the IOSCO Principles, the Administrator has primary responsibility for all aspects of the Benchmark determination process such as benchmark methodology, compilation and publication of the rate, and establishing credible and transparent governance, oversight and accountability procedures.": http://www.cba.ca/en/research-and-advocacy/93-cdor-corra-administrator-tender-notice/722-cdor--corra-administrator-tender-notice. The absence of regulatory oversight of the Administrator of both Canada's benchmarks is noteworthy.

IMF, and BIS have jointly identified.[60] It reflects the criteria in the Dodd-Frank Act for designation of a systemically important financial company in the US,[61] with the UK's more general description of systemic risk,[62] and with the EU.[63]

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[60] Report, *supra* note 3 at paras 12-21 and Box 1. The report's three main assessment criteria for systemic risk, relating to markets as well as institutions, are size, lack of substitutability, and interconnectedness. Contributing factors include leverage, liquidity risks and large mismatches (which tend to accompany maturity transformation), and complexity.

[61] Dodd-Frank Act, *supra* note 27 at s. 113(a) allows FSOC to determine that a nonbank financial company should be subject to prudential supervision if it determines that "material financial distress at the U.S. nonbank financial company, or the nature, scope, size, scale, concentration, interconnectedness, or mix of the activities of the U.S. nonbank financial company, could pose a threat to the financial stability of the United States". In making that determination, FSOC must consider a range of factors including its leverage and exposure, interconnectedness, size, liabilities including reliance on short-term funding, and generally "the nature, scope, size, scale, concentration, interconnectedness, and mix of the activities of the company". *Ibid.* s. 113(a)((2). When determining to impose more stringent regulation on a financial activity, Dodd-Frank requires FSOC to consider the conduct, scope, nature, size, scale, concentration, or interconnectedness of the activity or practice, in relation to its ability to create or increase the risk of significant liquidity, credit or other problems spreading among financial companies and in the financial markets. *Ibid.*, s. 120(a).

[62] *Financial Services Act*, *supra* note 31 at s. 9C(3) describes systemic risks to include, in particular, "systemic risks attributable to structural features of financial markets, such as connections between financial institutions", "systemic risks attributable to the distribution of risk within the financial sector," and "unsustainable levels of leverage, debt or credit growth".

[63] Regulation (EU) No. 1092/2010 (24 November 2010) at para 9: "The key criteria helping to identify the systemic importance of markets and institutions are size (the volume of financial services provided by the individual component of the financial system), substitutability (the extent to which other components of the system can provide the same services in the event of failure) and interconnectedness (linkages with other components of the system). An assessment based on those three criteria should be supplemented by a reference to financial vulnerabilities and the capacity of the institutional framework to deal with financial failures and should consider a wide range of additional factors such as, inter alia, the complexity of specific structures and business models, the degree of financial autonomy, intensity and scope of supervision, transparency of financial arrangements and linkages that may affect the overall risk of institutions".

Regulatory Powers to Address Systemic Risk

39. Designated systemically important benchmarks could be subject to additional requirements, prohibitions and restrictions put in place in order to address a systemic risk to capital markets. In particular, the *CMSA* would permit the Authority to prescribe requirements in relation to the *administrator's* responsibilities in order to address a systemic risk related to capital markets. Where a product has been designated as systemically important, it would also permit the Authority to regulate in relation to the method or process used to price or value the securities or derivatives, or to rates, indices or other underlying a class of derivatives, again in order to address a systemic risk related to capital markets. This is in line with IOSCO's July 2013 Principles for Financial Benchmarks, which both the FSB and G20 have endorsed, and with efforts in the UK and EU.[64]

[64] IOSCO Final Report, supra note 24 at pp. 9-29. IOSCO's principles, which are designed to provide a "framework of standards" and a "set of recommended practices", address: ensuring that administrators have governance arrangements in place that are suitably designed to protect the integrity of the benchmark determination process and to address conflicts of interest; ensuring the quality and integrity of benchmark determinations and determination methodology in terms their analytical design, data adequacy, transparency, and planning for transitions or material changes; and accountability (e.g., audit requirements, complaints procedures and obligations to cooperate with regulatory authorities. IOSCO has conducted annual reviews of the standards' implementation by EURIBOR (in the EU), LIBOR (in the UK) and TIBOR (in Japan) administrators in February 2015 and February 2016, generally finding that the administrators are proactively working toward implementing the standards but that progress has been greater in implementing principles related to benchmark quality, as opposed to principles related to governance, transparency and accountability. (Benchmark regulation in the UK was wholly changed in response to the LIBOR scandal). The EU is in the process of adopting a benchmark regulation consistent with IOSCO's principles, to which ESMA contributed technical advice and draft technical standards. The US does not directly regulate benchmarks, although it can and has brought enforcement actions in relation to benchmark manipulation. It relies on the UK in particular, as regulator of LIBOR, for actual regulation.

40. After considering the factors that can make a product systemically important or a practice systemically risky, the CMSA would empower the Authority to prescribe a class of products or a practice as systemically important or systemically risky. Once so prescribed, those products or practices could be subject to additional requirements, prohibitions and restrictions put in place in order to address a systemic risk to capital markets. The CMSA allows for regulations relating to designated systemically important products to be promulgated essentially around four main categories of things: first, their trading, clearing and settlement; second, the transparency of their trades to the extent disclosure is not already required; third, the means by which they are priced; and finally, requirements going to prudential and risk management, including capital and leverage requirements, margin and collateral limits, the retention of risk, and policies and procedures for risk management. In relation to systemically risky practices, regulation may be promulgated essentially around four categories too: risk management including related aspects of governance; transparency and disclosure to the extent they are not already required; capital and leverage requirements, margin and collateral limits and the like; and credit ratings.

41. Considering these provisions in the context of actual issues, these provisions would permit Canada, in keeping with the G20 Commitments, to impose CCP clearing and trade reporting obligations on OTC derivatives trades. The G20 Commitments provide for two main responses to the systemic risks posed by OTC derivatives. The first is that standardized OTC derivatives contracts be cleared through central counterparties, and the second is that non-standardized OTC derivatives trades be recorded

through a trade repository.[65] The US[66] and the EU[67] are in the process of implementing these G20 Commitments, and the CMSA provisions above could provide for them too. The CMSA provisions are flexible enough to reflect evolving knowledge and practices as well. For example, the BIS and IOSCO have proposed, and some US regulators have already adopted, additional margining practices for all non-cleared OTC derivative transactions.[68] An initiative of that nature could also be accomplished under the CMSA.

42. The same could be said with regard to securities repurchase (or "repo") transactions and other securities lending transactions.[69] For the reasons

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[65] See *supra* notes 13, 15.

[66] Dodd-Frank, *supra* note 27, Title VII sets out a clearing requirement for swaps (the US word for derivatives) that the SEC and CFTC determine should be cleared.

[67] Under the European Market Infrastructure Regulation, Regulation No 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR), ESMA proposes which products should be subject to mandatory clearing. EMIR applies directly in the UK as well.

[68] BIS/IOSCO, "Margin requirements for non-centrally cleared derivatives" (March 2015), http://www.bis.org/bcbs/publ/d317.pdf. The report suggests at page 4 that margin requirements are more targeted and dynamic than existing credit requirements, and their increased use would "have a useful influence on incentives". In the US, see Federal Reserve et al., Join Press Release, "agencies Finalize Swap Margin Rule" (30 October 2015), at https://www.federalreserve.gov/newsevents/press/bcreg/20151030b.htm; CFTC, Release PR7294-15, "CFTC Approves Final Rule on Margin Requirements for Uncleared Swaps for Swap Dealers and Major Swap Participants" (16 December 2015) at http://www.cftc.gov/PressRoom/PressReleases/pr7294-15.

[69] A more detailed discussion of repo transactions, OTC derivatives, money market funds and other financial innovations is in the report of Andrew Metrick.

discussed by Darrell Duffie,[70] these repo transactions can be risky. There is evidence that in response to regulation in the US banking sector, that country's repo market is moving away from banks and into the nonbank (i.e., the capital markets) space.[71] The IMF and the FSB have called for imposing additional margin and "haircut" requirements on such transactions, to reduce the systemic risk associated with those markets.[72] Repo transaction margin requirements are or could be also provided for in the US,[73] and the EU.[74] The CMSA would provide for this in Canada as well.

43. Additionally, the issue of risk retention in asset securitization transactions (what is sometimes referred to as the requirement that someone selling securitized assets also retain some "skin in the game") has received considerable attention. The FSB has discussed. Dodd-Frank imposes a

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[70] Report of Darrell Duffie, section "Securities financing transactions: repos and sec lending" at p. 44 and following.

[71] Katy Burne, "Repo Market Sees a Lending Shift as Rules Bite" *The Wall Street Journal* (7 April 2015) at http://www.wsj.com/articles/repo-market-sees-a-lending-shift-as-rules-bite-1428450643.

[72] IMF, "Key Aspects of Macroprudential Policy" (10 June 2013) para. 64, at https://www.imf.org/external/np/pp/eng/2013/061013b.pdf; FSB, "Strengthening Oversight and Regulation of Shadow Banking: Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos," (29 August 2013) at http://www.fsb.org/wp-content/uploads/r_130829b.pdf?page_moved=1; FSB, "Transforming Shadow Banking into Resilient Market-based Finance" (12 November 2015) at http://www.fsb.org/wp-content/uploads/SFT_haircuts_framework.pdf.

[73] Dodd-Frank s. 165(e)(2) would allow the Federal Reserve by regulation to limit credit exposure to repos and securities borrowing for systemically important nonbank financial companies.

[74] See EMIR, *supra* note 67; EU Commission Delegated Regulation supplementing Directive 2014/65/EU ("MiFID 2" and the companion MiFIR) . Both also apply in the UK.

skin-in-the-game requirement.[75] The EU and UK also impose risk retention obligations.[76] The CMSA risk retention provisions above would permit this as well.

44. As Professor Duffie's report describes, money market funds (MMFs) are investment funds that hold short term, liquid assets. Although they are created and sold within the capital markets, from the investor's perspective they serve effectively the same function that a depository account at a bank would do. However, they can be subject to runs in times of crisis.[77] The US,[78] and the EU[79] have begun to address the risks that may be associated with MMFs, and the CMSA provisions above would permit this as well.

45. To be clear, all of these are requirements that are geared toward identifying and addressing the buildup of systemic risk, not normal risks to investors,

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[75] Dodd Frank requires asset securitizers to retain an economic interest of at least 5% of the credit risk of any asset that the securitizer sells through an asset-backed security, and the securitizer is prohibited from directly or indirectly hedging or transferring that retained credit risk. Dodd-Frank, 12 USC 5301 (2010), ss, 941-943, 945.

[76] The EU imposes risk retention requirements in Regulation (EU) No 575/2013, which applies to the UK, as a member state. The EU is currently reforming its securitization framework, including risk-retention rules, to enhance the effectiveness of regulation in this area. online: http://europa.eu/rapid/press-release_STATEMENT-15-6239_en.htm?locale=en

[77] Report of Darrell Duffie, section "Money Market Mutual Funds" at p. 50 and following.

[78] US SEC Final Rule, Release No. 33-9616 *Money Market Fund Reform* (23 July 2014), online: https://www.sec.gov/rules/final/2014/33-9616.pdf.

[79] European Commission, Proposal for a Regulation of the European Parliament and of the Council on Money Market Funds /* Com/2013/0615 final (2013), online: http://ec.europa.eu/finance/investment/money-market-funds/index_en.htm. EU MMF regulation would apply in the UK: see European Parliament, "Money Market Funds: Impact Assessment of Substantive EP Amendments" (March 2015) at p. 18, online: http://www.europarl.europa.eu/RegData/etudes/STUD/2015/547545/EPRS_STU(2015)547545_EN.pdf.

within the capital markets in particular. Each set of responses is different in kind to the disclosure-based and registrant business conduct requirements that tend to be associated with day-to-day capital markets regulation.

46. The above specific products and practices are perhaps the main concerns of systemic risk regulators today, and the CMSA gives the Authority the ability to respond to those risks in a way that is compatible with its peer countries and with international understandings of systemic risk. At the same time, future concerns that may arise as a result of financial innovation, and that we cannot yet predict, can also be addressed under the CMSA's focus on benchmarks, products and practices – contingent always on a finding of systemic risk or systemic importance, and with a requirement to consider what other regulation is already in place.

Urgent Order Powers in Relation to Systemic Risk

47. Finally, the CMSA gives the Authority the ability to enact urgent orders where, in its view, they are necessary to address a "serious and immediate" systemic risk concerning the capital markets. The federal Minister of Finance may order the Authority to make an urgent order as well, after consultation, under s. 25. An urgent order may suspend or restrict a product's trading, or prevent or restrict a person from trading, from reducing their capital or financial resources or from engaging in a practice. The order is effective for 15 days but may be extended once.

48. All other comparator jurisdictions have this power. In the US, the SEC has possessed urgent order power since 1934, and the Federal Reserve now

has additional powers in the event that a systemically important company poses a "grave threat" to US financial stability.[80]

III. *CMSA* powers as compared to provincial / territorial securities regulatory provisions

49. The *CMSA* provisions are different in kind from provincial / territorial securities regulatory provisions.

50. Whenever the Authority is considering designating a benchmark, product or practice as systemically important or risky, one of the factors it must take into account is whether and how the benchmark, product, or practice is already regulated. Once a product, practice or benchmark has been designated as systemically risky or systemically important, the *CMSA* allows the federal government to impose additional requirements on designated products, practices or benchmarks as necessary to address the problem of systemic risk in particular, but it does not supplant underlying and ongoing regulation of those products, practices or benchmarks.

51. As discussed above, the powers provided for in the proposed are different in nature from the powers provided for in provincial and territorial securities regulation. The powers provided for in the proposed *CMSA* go to addressing

[80] Section 12(k)(2) of the *Securities Exchange Act* of 1934 says that in emergency circumstances, the SEC may summarily take action to alter, supplement, suspend, or impose requirements or restrictions with respect to any matter or action subject to SEC regulation or under securities law, if the SEC determines that it is necessary "in the public interest and for the protection of investors". Such emergency orders must not exceed 30 days. Dodd-Frank s. 121(a) states that in the event of such a grave threat, the Federal Reserve, with 2/3 approval of FSOC, must take actions necessary to mitigate such risk, including restricting the company's mergers or acquisitions, product offerings, activities and the manner in which activities are conducted, or even ordering a sale or transfer of assets to unaffiliated companies.

risks to the system as a whole, particularly through prudential regulatory tools. The powers provided for in provincial and territorial securities regulation go to investor protection, and to market participant regulation with regard to conflicts of interest, information asymmetries, anti-fraud measures and the like.

52. Notably, the provinces and territories remain responsible for the day-to-day regulation of:

i. Products (securities and derivatives) in the capital markets, for the purpose of investor protection;

ii. Practices in the capital markets, for the purpose of investor protection;

iii. Self-regulatory organizations, i.e., IIROC and MFDA, which operate pursuant to delegated authority from relevant provincial or territories securities regulators;

iv. Trading facilities, including exchanges and alternative trading systems. Like self-regulatory organizations, exchanges operate under delegated provincial / territorial authority. Provincial jurisdiction remains intact except to the extent under the *CMSA*, designated systemically important products can be regulated “including in relation to their trading on a trading facility”, and the Authority can invoke its urgent order powers to suspend or restrict trading on a trading facility where necessary to address a “serious and immediate systemic risk related to capital markets”.

v. Clearing houses [jointly with Bank of Canada], but for the obligation to centrally clear systemically important products;[81]

vi. Trade repositories [subject to OSFI guidance], but for the obligation to report systemically important products to them, and where, on the trade repository's own application, it is a "designated trade repository" for information collection and disclosure purposes under the *CMSA* Part 1;

vii. Registrants (e.g., dealers, advisers and investment fund managers): Since 2009, dealers, advisers and investment fund managers have been regulated by provincial and territorial regulators under NI 31-103 and under the "81 series" of national instruments. The proposed *CMSA* does not displace that and does not seek to regulate dealers as entities. To the extent that dealers' and advisers' have exposures and liabilities involving particular systemically important products or systemically risky practices, however, any additional obligations under the *CMSA* that relate to those products or practices will apply to them in dealers' and advisers' hands as well;

viii. Credit rating agencies, but for their use and conflicts of interest involved in their determination with respect to systemically risky practices: credit rating agencies must be registered with provincial and territorial

[81] In fact, what the *CMSA* would put in place for systemically important products or systemically risky practices looks very much like what is already in place for the main clearing houses in the securities and derivatives spaces, CDS Clearing and Depository Services Inc. (CDS) and Canadian Derivatives Clearing Corporation (CDCC) respectively. The Ontario, Québec and British Columbia provincial securities regulators are responsible for these clearing houses' day-to-day oversight, but the BoC oversees their systemic importance aspects. Both (along with SwapClear, a global clearing system whose lead regulator is the BoE) have been designated as systemically important pieces of financial market infrastructure under s. 4(1) of the federal *Payment Clearing and Settlement Act*, S.C. 1996, c. 6.

securities regulators as a "designated rating organization" (DRO) in order for their ratings to satisfy securities law requirements. DROs must abide by a code of conduct, which includes rules in relation to governance, conduct, conflicts of interest, required filings and disclosure;

ix. Any other aspects of the day-to-day regulation of the securities markets.

53. As the IMF noted in its 2014 Financial Stability Report, Canada's regulation of the day-to-day operations of the securities markets exhibit "a high level of implementation" of IOSCO's *Objectives and Principles of Securities Regulation* (2010).[82] The *CMSA* does not disturb that day-to-day regulation. That said, as the IMF has noted, gaps remain.[83]

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[82] IMF Country Report, *supra* note 50 at para 48.

[83] Ibid.

Appendix A: Financial Regulation in the US, the UK and the European Union

Explanatory note

1. The diagram of financial regulation for each jurisdiction distinguishes between the following three levels of regulation.

Consumer / Investor facing:

2. The regulation of the subject as it relates to customers or investors. E.g., regulation of the relationship between individual customers / clients / market participants and securities or derivatives. Examples would be regulation of the distribution of securities or derivatives in the primary or secondary markets; regulation of banks' or insurance companies' relationships to their clients; regulation that applies to companies submitting information to benchmarks.

Business Conduct:

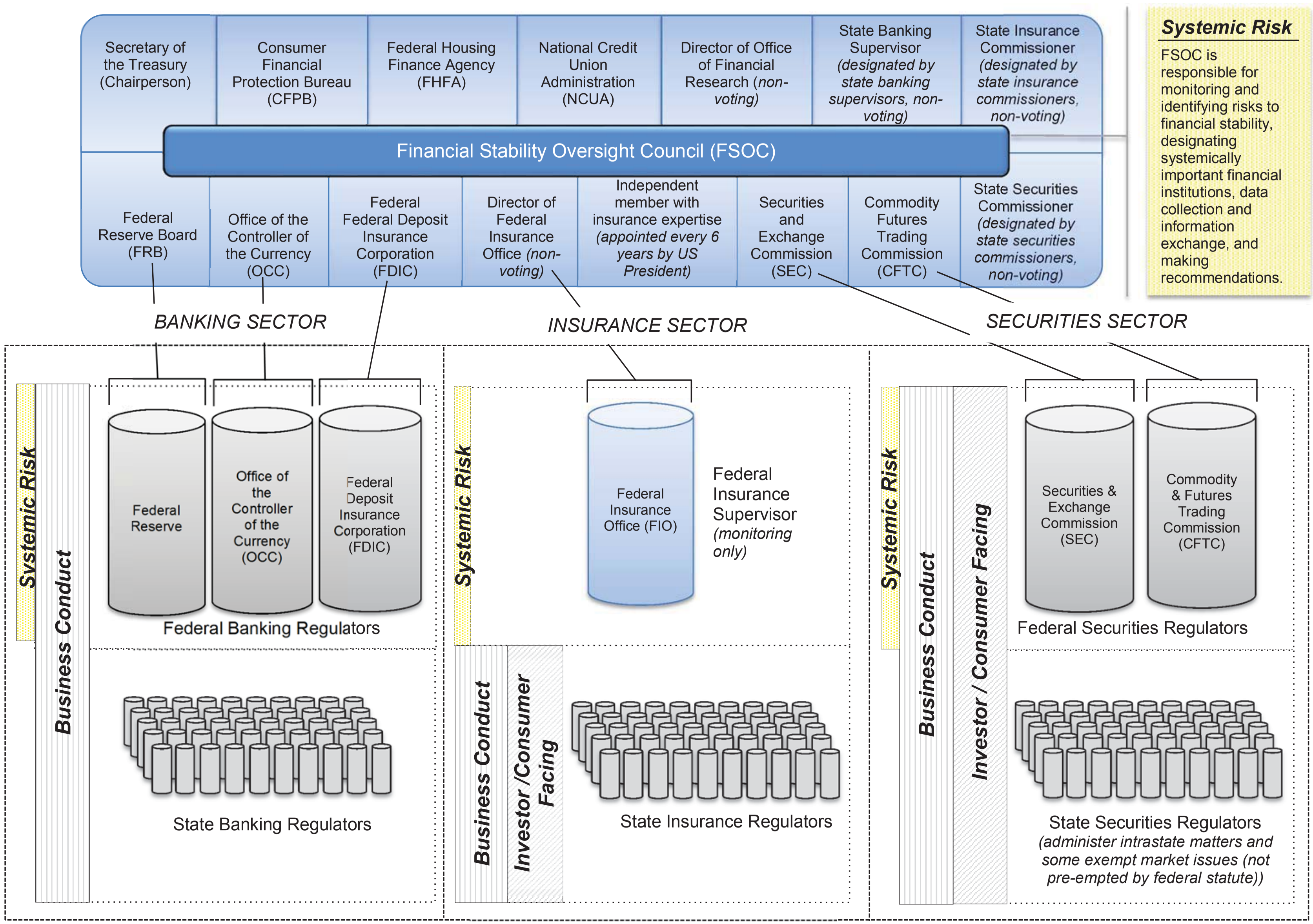
3. Intermediary regulation, including prudential regulation of market participants. This includes the regulation of professionals in the industry, or institutions operating in the industry in terms of their structure, qualifications, standards, and safety and soundness. Examples would be regulation of capital markets registrants (dealers and advisers); regulation of banks or insurance companies themselves, apart from their client relationships; regulation that applies to companies administering benchmarks.

Systemic Risk

4. Regulatory oversight and regulatory tools capable of detecting, monitoring, and preventing systemic risk. This includes regulation which addresses systemic risk within a particular financial market, such as insurance or securities and derivatives. It also includes the regulatory structures which have oversight over all the financial markets in a particular jurisdiction. Examples of measures taken at this level would include data collection in relation to systemic risk; designation of particular products or practices as systemically important or risky; directions and

recommendations to other regulators, urgent orders triggered by serious, immediate or grave threats to financial stability; and the direct use of macroprudential tools such as modified capital, liquidity or margin requirements, haircuts, and selling bans.[1]

[1] Some of these tools are discussed by other experts in this file, notably Mr. Duffie, “Microprudential versus macroprudential regulation” at page 36 and following; and Mr. Metrick



Financial Regulation Framework around Systemic Risk in the United States

[1] *"Business conduct"* in the capital markets context refers generally to professional regulation of registrants for qualifications and sound business practices, mitigating conflicts of interest, adequately serve their clients' interests, and the like. Beyond capital markets (i.e. in banking and insurance), the term means primarily prudential requirements (See also footnote 23).

[2] US banking regulation is complicated, including for "Investor/consumer facing" regulation, which is omitted here as it is not a core concern of this report. This diagram identifies only the main players, and does not explain the relationships between them.

The United States

5. US financial regulation is similar to Canada's in that it maintains the traditional banking / insurance / securities three-part regulatory distinction, and it is a federal system. However, its federal system operates quite differently.

6. US banking regulation is complex and has both state and federal aspects. Three federal banking regulators oversee different institutions. As is the norm for banking regulation, the main focus is *prudential* regulation.

7. Securities regulation in the US is primarily federal. At the federal level are the Securities Exchange Commission (SEC) and Commodity Futures Trading Commission (CFTC), which are the primary regulators for the vast majority of capital markets issues and market participants. Federal legislation pre-empts state securities regulation subject to limited exemptions.[2] For systemic risk purposes, federal jurisdiction occupies the field. US federal regulators, notably the SEC and the CFTC, have skirmished in the past over the boundaries of their respective jurisdictions. However, the SEC and the CFTC can regulate US capital markets "all the way up" (and down, subject to the exemptions above), including with respect to systemic risk. In 2010, in response to the financial crisis, the US enacted the *Dodd-Frank Wall Street Reform and Consumer Protection Act* (Dodd-Frank Act), which gave the SEC and CFTC additional powers, particularly to regulate derivatives.[3]

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[2] Exemptions exist for purely *intra*state securities regulation; licensing for investment professionals and their firms operating within a state; non-class action securities fraud lawsuits (of which there are very few); and small, non-exchange traded, exempt market securities sold in the state. See *Securities Act of 1933*, s. 3(a)(11); SEC Regulation A, and Rule 504 of SEC Regulation D. Within the exemptions, where federal legislation does not pre-empt, background state securities regulation applies. A Small Corporate Offering Registration (SCOR) program exists between some state regulators, which operates somewhat like the passport system in Canada, for SEC-exempt offerings, though (as with the passport program) not all states participate and state-based regulatory standards are not fully harmonized.

[3] Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203. The new regulatory powers are described at Title VII, Subtitle A ("Regulation of Over-the-Counter Swaps Markets").

8. As with Canadian securities regulation, US insurance regulation is state-based, and caselaw has reinforced state jurisdiction over insurance regulation. However, the Dodd-Frank Act created a new federal authority and new federal jurisdiction – to recommend, consult, advise but not actually to regulate – with regard to systemic risk in the insurance sector.[4] (See below, also, regarding FSOC designation of systemically important insurers.)

9. Dodd-Frank also established a new body, the Financial Stability Oversight Council (FSOC). FSOC has several functions, including:

- Collecting information on financial firms from regulators and through the new Office of Financial Research, and monitoring the financial system to identify potential systemic risks;
- Facilitating information sharing and coordination among financial regulators;
- Making regulatory recommendations to financial regulators, including "new or heightened standards or safeguards", and identifying gaps in regulation that could pose systemic risk; and,
- Designating financial companies as "systemically important financial institutions" (SIFIs), which has the effect of imposing more stringent regulatory requirements on those institutions. The Federal Reserve acts as the primary regulator for all financial institutions (both bank and non-bank, or "shadow

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[4] Dodd-Frank s. 502 establishes in the Treasury the Federal Insurance Office (FIO), which is authorized, *inter alia*:

(A) to monitor all aspects of the insurance industry, including identifying issues or gaps in the regulation of insurers that could contribute to a systemic crisis in the insurance industry or the United States financial system; …

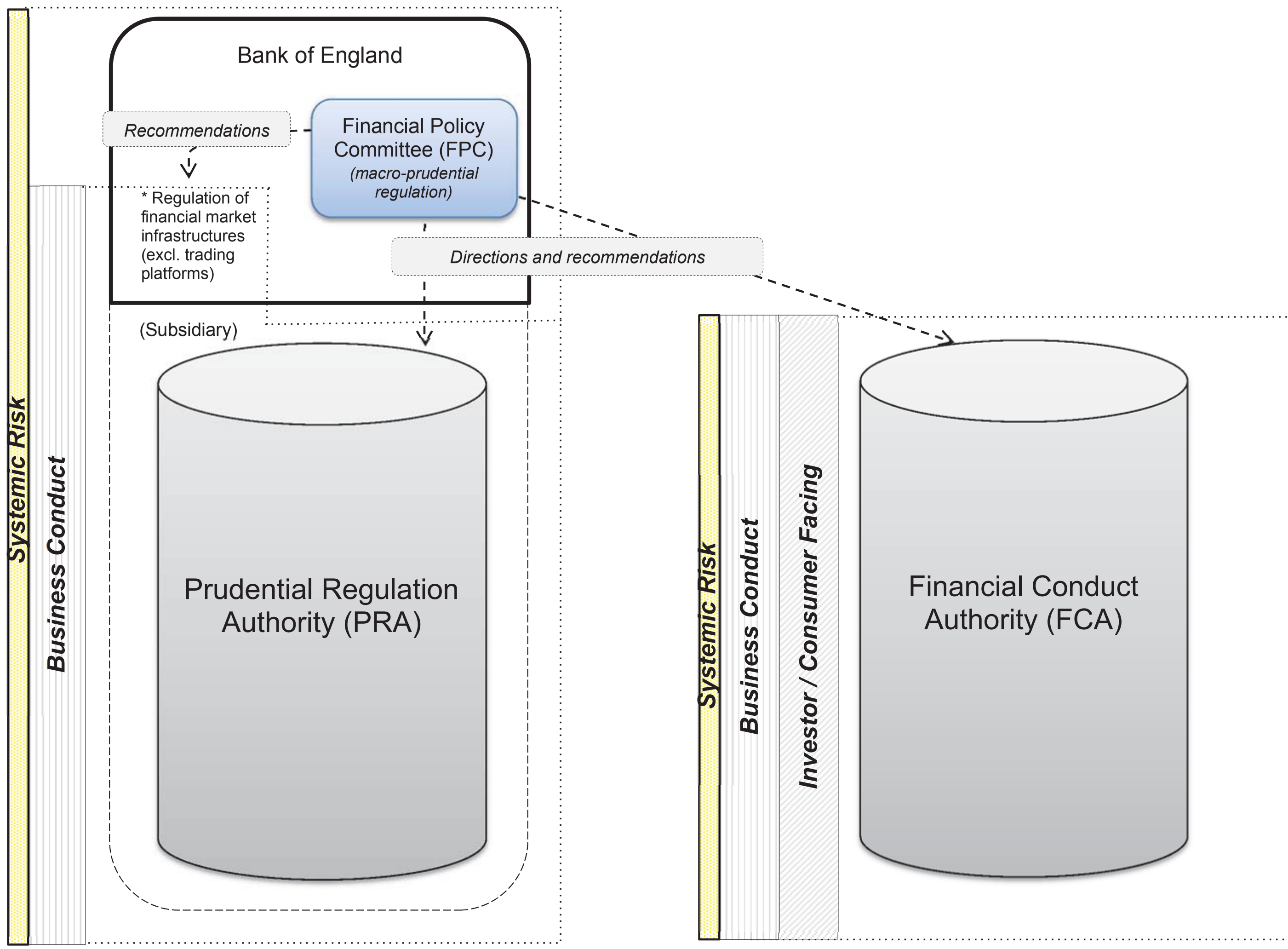
(C) to recommend to the Financial Stability Oversight Council that it designate an insurer, including the affiliates of such insurer, as an entity subject to regulation as a nonbank financial company supervised by the Board of Governors pursuant to title I of the Dodd-Frank Wall Street Reform and Consumer Protection Act; … [and]

(E) to coordinate Federal efforts and develop Federal policy on prudential aspects of international insurance matters …

banks" operating in the capital markets, and insurance companies) that FSOC designates as SIFIs.[5]

[5] SIFIs include banks with consolidated assets over $50 billion, which are automatically deemed systemically important and require no further designation; and non-bank financial companies that FSOC has designated as systemically important: see Dodd-Frank s. 113, FSOC Final Rule on Authority to Require Supervision and Regulation of Certain Non-bank Financial Companies, 12 C.F.R. Para 1310. Dodd-Frank identifies systemically important financial companies as being those that could pose a threat to financial stability through either the company's material financial distress or the company's ongoing activities. Section 165 of Dodd-Frank requires the Federal Reserve to establish enhanced supervision and prudential standards for SIFIs, including in relation to how much capital they need to keep on hand, leverage and liquidity limits, overall risk management, corrective action plans (including orderly resolution in the event of bankruptcy), and any other prudential standard that the Federal Reserve deems appropriate, either on its own or on recommendation from FSOC.

As of June 2015, FSOC had designated as systemically important 33 bank holding companies with consolidated assets greater than $50 billion, and four non-bank financial companies: American International Group, Inc., General Electric Capital Corporation, Inc., Prudential Financial, Inc., and MetLife, Inc.. On March 30, 2016, to general surprise and consternation, the US District Court for the District of Columbia (per Collyer J.) rescinded MetLife's SIFI designation on the basis that FSOC had failed to consider the cost of designation, as it was held to be required to do under a "hard look" review under US administrative law principles, in making its designation determination. *MetLife vs. FSOC*: https://morningconsult.com/wp-content/uploads/2016/04/fsoc-ruling.pdf. The decision seems ripe for appeal (Dodd-Frank in fact only says that FSOC "shall" consider "any other risk-related factors that the Council deems appropriate", not that it *must* conduct a cost-benefit analysis) but in any event only speaks to *entity*-based designation under the US scheme.



Financial Regulation Framework around Systemic Risk in the United Kingdom

[1] "*Business conduct*" means

a) when used in relation to the PRA: primarily prudential regulation over its regulatees (which are the systemically significant deposit takers, insurers, and some investment firms);

b) when used in relation to the FCA: (i) prudential regulation over all regulated entities falling outside the PRA's remit (including asset managers, hedge funds, exchanges, insurance brokers, and financial advisors, but not financial market infrastructures), and (ii) generally the professional regulation of registrants for qualifications and sound business practices, mitigating conflicts of interest, ensuring they adequately serve their clients' interests, and the like; and

c) when used in relation to regulation of financial market infrastructures by the Bank of England: generally the professional regulation of central counterparties and securities settlement systems to ensure they maintain sound business practices and prudential standards and mitigate risks.

The United Kingdom

10. In the wake of the last financial crisis, the UK overhauled its financial regulatory structure. The UK now has a wholly different regulatory model from the American one or the Canadian one. The UK abolished its existing regulator, the Financial Services Authority, and through the *Financial Services Act of 2012* established three new bodies.[6] The UK adopted a version of "twin peaks" regulatory structure under which one regulator, the Prudential Regulatory Authority (PRA), is responsible for prudential regulation of systemically important institutions across all of banking, capital markets and insurance. A separate regulator, the Financial Conduct Authority (FCA), is responsible for investor protection, business conduct, market integrity and competition across all of banking, capital markets and insurance (as well as for prudential regulation of smaller, non-systemically important institutions). The PRA is a subsidiary of the BoE.[7] The UK's membership in the EU (but not the Eurozone) means that the UK's financial system is also subject to EU (but not specifically Eurozone) law.

11. Each of the FCA and PRA has the duty to coordinate the exercise of its functions with the other, and must co-operate with the BoE with regard to financial stability.[8] In certain circumstances, the PRA can exercise a veto: it may instruct the FCA to refrain from exercising its regulatory authority, if the PRA deems that that action

[6] *Financial Services Act of 2012*, CITE. Strictly speaking, the 2012 Act continued the former FSA as the new Financial Conduct Authority (FCA), and then it allocated prudential regulatory responsibility (at both the micro and macro levels) to the Bank of England. The Bank's subsidiary, the Prudential Regulatory Authority (PRA), then became responsible for the microprudential regulation of systemically important financial institutions. The FSA was described as "unified" because it was responsible for all financial services – i.e., banking, capital markets and insurance – and for both prudential and market conduct regulation of all those firms. After the crisis, it was determined that the FSA's mandate contained inherent conflicts of interest between prudential and market conduct regulation, and moreover that the regulator had placed emphasis on market conduct at the expense of prudential regulation. Northern Rock postmortem: UK Financial Services Authority, Internal Audit Division. *The Supervision of Northern Rock: A Lesson Learned Review*, (Mar. 2008), http://www.frank-cs.org/cms/pdfs/FSA/FSA_NR_Report_25.4.08.pdf.

[7] Depository insurance covers the institutions that are prudentially regulated by the PRA, which means that depository insurance in the UK extends beyond banks and to insurers and some investment firms. CITE.

[8] *Financial Services Act of 2012*, *Part 2 — Amendments of Financial Services and Markets Act 2000,* 3D, 3Q.

could cause a financial institution to fail, and that its failure would have an adverse effect on the UK financial system or threaten UK financial stability as a whole.[9]

12. The BoE is responsible for overseeing UK financial stability as a whole. The new new body established by the *Financial Services Act of 2012* is the Financial Policy Committee (FPC). The FPC is an independent subcommittee of the Court of Directors of the BoE whose responsibility "in relation to the achievement by the Bank of the Financial Stability Objective relates primarily to the identification of, monitoring of, and taking of action to remove or reduce systemic risks with a view to protecting and enhancing the resilience of the UK financial system".[10] In this respect, the FPC is somewhat analogous to FSOC in the US.[11] The FPC does not have direct regulatory responsibility for or authority over specific entities, but instead implements its systemic risk measures through the PRA and FCA, as well as through the Treasury and within the Bank. It has the authority to give directions to the FCA and PRA requiring them to exercise their functions so as to ensure the implementation of a macro-prudential measure described in the direction.[12] The FCA and PRA are then responsible for implementing the measures vis-à-vis the regulated firms in question, and for subsequent compliance monitoring and supervision. Directions must be complied with as soon as is reasonably practicable.[13] The FCP also has the power to make recommendations to the FCA,

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[9] *Financial Services Act of 2012*, *Part 2 — Amendments of Financial Services and Markets Act 2000,* 3I.

[10] *Financial Services Act 2012*, U.K. 2012 c. 21, s. 9C. The Financial Stability Objective is to "protect and enhance the stability of the financial system of the United Kingdom": *Bank of England Act 2009*, UK 2009 c. 1 s. 2A.

[11] The membership of the FPC is comprised of the Governor, three Deputy Governors, the Chief Executive of the FCA, the BoE's Executive Director for Financial Stability Strategy and Risk, four external members as appointed by the Chancellor, and a non-voting member from the Treasury.

[12] *Financial Services Act of 2012*, *Part 1 – Bank of England,* 9H(1)

[13] *Financial Services Act of 2012*, *Part 1 – Bank of England,* 9I.

PRA, to the Treasury, within the Bank or to any persons.[14] The FCA and PRA must comply with the recommendation or explain its reason for not complying.[15]

13. A main objective of the UK reforms was to close a gap in the pre-crisis system[16] of regulation, which lacked an authority responsible for identifying, monitoring and responding to risks building up in the financial system. The FPC was meant to address this key gap. The new scheme was also designed to bring together within the BoE the responsibility for the micro-prudential regulation of individual entities under the PRA, and the responsibility for macroprudential regulation under the FPC.

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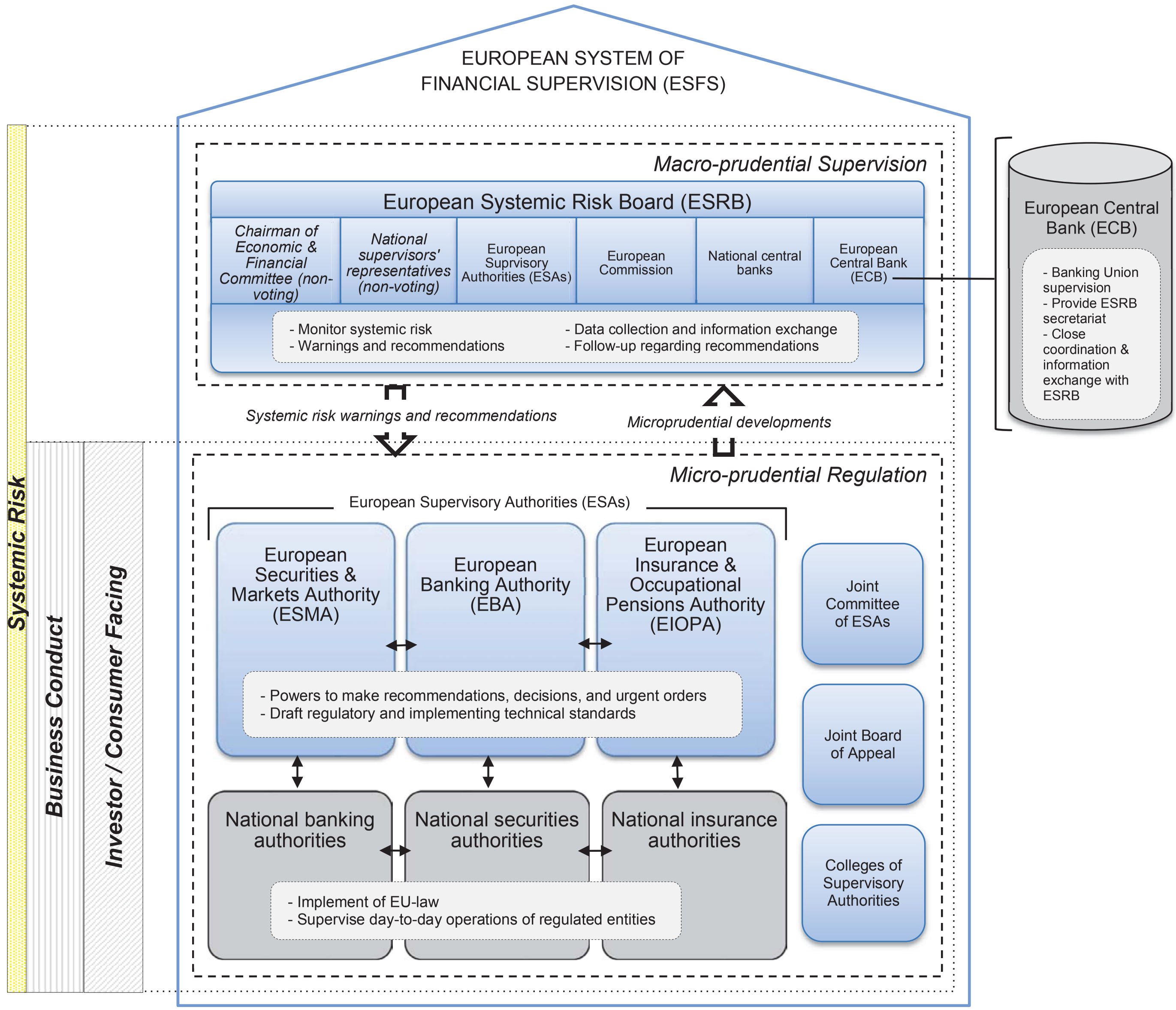
[14] *Financial Services Act of 2012*, *Part 1 – Bank of England,* 9O, 9P and 9Q.

[15] *Financial Services Act of 2012*, *Part 1 – Bank of England*, 9Q(3).

[16] Under the pre-crisis regime, the Bank of England, the Financial Services Authority (FSA) and the Treasury were collectively responsible for financial stability.



Financial Regulation Framework around Systemic Risk in the European Union

[1] *"Business conduct"* in the capital markets context refers generally to professional regulation of registrants for qualifications and sound business practices, mitigating conflicts of interest, adequately serve their clients' interests, and the like. Beyond capital markets (i.e. in banking and insurance), the term means primarily prudential requirements (See also footnote 23).

[2] This diagram depicts the roles of the micro-prudential regulators as a whole, not individually. The levels of "systemic risk", "business conduct" and "investor/consumer facing" regulation refer to the overall system and may be over-inclusive relative to any particular EU or member state regulator.

The European Union

14. Under EU law, member states (like the UK) are generally responsible for implementing law, so national authorities are the primary regulators. However, following the last financial crisis, the EU reformed both the structure and content of its financial regulation, establishing a new overarching European System of Financial Supervision (ESFS), including new EU-level regulators and powers.[17]

15. The ESFS facilitates coordination across financial sectors, and between the EU and national levels. EU-level authorities now operate as oversight and regulatory harmonization bodies that supervise the implementation and execution of EU financial regulatory law by member states and their national authorities. They monitor the EU markets, including the role of the national authorities, and facilitate data collection and information exchange. The ESFS consists of the following bodies:

- The European Systemic Risk Board (ESRB). Its functions, all concerning systemic risk, include data collection and sharing information; identifying and prioritizing risks; issuing warnings and recommendations (to the Union, any member state, or any relevant EU or member state regulator), which trigger an "act or explain" mechanism; assessing emergency situations; and cooperating with other ESFS parties, the ECB, and international bodies.[18] In some ways the ESRB is analogous to the US FSOC or the UK FPC, but with the ability to issue warnings and recommendations to both EU and member state levels below.[19]

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[17] Less central to this report, the EU also made two other large changes: it established a Single Rulebook for prudential regulation of all banks in the EU, including capital requirements and recovery and resolution provisions; and it established a new banking union, in the form of the European Central Bank (ECB), aimed at centralizing banking supervision and resolution for Eurozone countries. The ECB supervises all banks within the banking union, and Eurozone members are required to participate in the Single Supervisory Mechanism (SSM) and Single Resolution Mechanism (SRM). Both are also open to the non-Eurozone EU member states.

[18] https://www.esrb.europa.eu/shared/pdf/ESRB-en.pdf?5b068f19359d8a5d7a1008312ac116c4

[19] Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board, [2010] OJ L 331/1, art 16. Notably, "[i]n order to increase their influence and legitimacy, such

- Three sectoral European Supervisory Authorities (ESAs), with powers to, *inter alia,* implement technical standards associated with legislation within their scope; issue guidelines and recommendations to national authorities or, in certain cases, to specific financial institutions, which triggers a comply-or-explain mechanism;[20] make decisions concerning specific national authorities or, in certain cases, specific financial institutions (i.e. breach of EU law); and to respond to emergency situations. ESAs also work with the ESRB in identifying and measuring systemic risk. ESAs also have a seemingly broad systemic risk power in the form of a "specialized and ongoing capacity to respond effectively to the materialization of systemic risks, ... in particular, with respect to institutions that pose a systemic risk".[21] They are the European Banking Authority (EBA), the European Securities and Markets Authority (ESMA), and the European Insurance and Occupational Pensions Authority (EIOPA).

- Also part of the ESFS are a Joint Committee of the European Supervisory Authorities (ESAs), which is a cross-sectoral body that focuses on enhancing coordination across sectors, and the national competent authorities designated by each Member State.

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warnings and recommendations should also be transmitted [by the ESRB], subject to strict rules of confidentiality, to the Council and the Commission and, where addressed to one or more national supervisory authorities, to the ESAs": *ibid.* at para 19.

[20] See, e.g., Article 16.3 of Regulation establishing the European Banking Authority: http://register.consilium.europa.eu/doc/srv?l=EN&f=PE%2040%202010%20INIT. The other ESAs have the same provision.

[21] Regulation (EU) No 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/78/EC, [2010] OJ L 331/12, art 24.. EU law involves binding instruments, such as regulations, directives and decisions, and non-binding instruments, such as recommendations and opinions. Regulations apply directly throughout the EU, while directives must be transposed into national law by member states. Directives bind all member states to achieve specified goals, leaving form and method to the discretion of national governments. Decisions apply directly to those they address.

Appendix B: Financial Regulation in Canada

Explanatory note

1. The diagram of financial regulation for each jurisdiction, including the following one for Canada, distinguishes between the following three levels of regulation.

Consumer / Investor facing:

2. The regulation of the subject as it relates to customers or investors. E.g., regulation of the relationship between individual customers / clients / market participants and securities or derivatives. Examples would be regulation of the distribution of securities or derivatives in the primary or secondary markets; regulation of banks' or insurance companies' relationships to their clients; regulation that applies to companies submitting information to benchmarks.

Business Conduct:

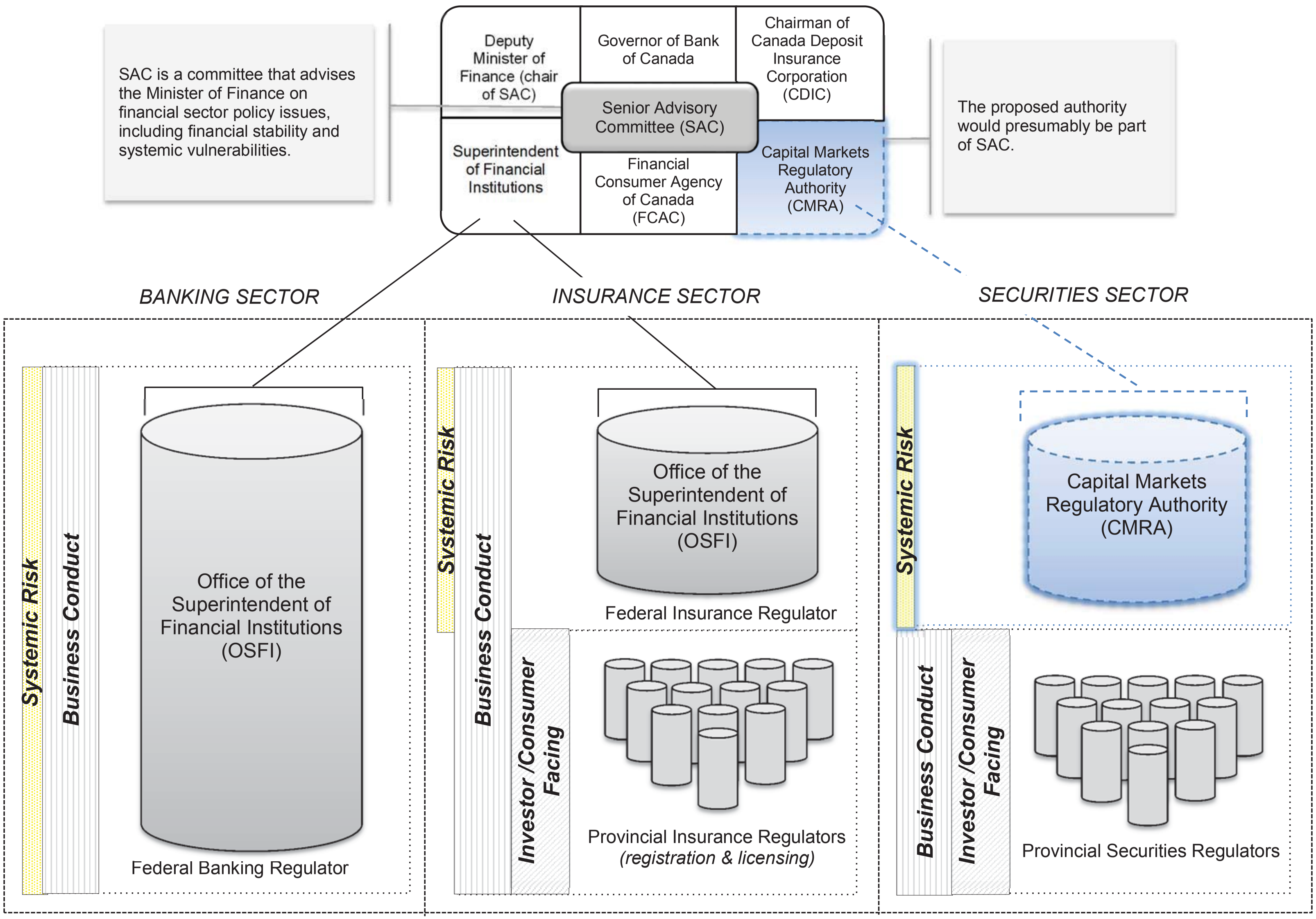
3. Intermediary regulation, including prudential regulation of market participants. This includes the regulation of professionals in the industry, or institutions operating in the industry in terms of their structure, qualifications, standards, and safety and soundness. Examples would be regulation of capital markets registrants (dealers and advisers); regulation of banks or insurance companies themselves, apart from their client relationships; regulation that applies to companies administering benchmarks.

Systemic Risk

4. Regulatory oversight and regulatory tools capable of detecting, monitoring, and preventing systemic risk. This includes regulation which addresses systemic risk within a particular financial market, such as insurance or securities and derivatives. It also includes the regulatory structures which have oversight over all the financial markets in a particular jurisdiction. Examples of measures taken at this level would include data collection in relation to systemic risk; designation of particular products or practices as systemically important or risky; directions and

recommendations to other regulators, urgent orders triggered by serious, immediate or grave threats to financial stability; and the direct use of macroprudential tools such as modified capital, liquidity or margin requirements, haircuts, and selling bans.[22]

[22] Some of these tools are discussed by other experts in this file, notably Mr. Duffie, “Microprudential versus macroprudential regulation” at page 36 and following; and Mr. Metrick



Financial Regulation Framework around Systemic Risk in Canada and the Role of the CMRA

[1] *"Business conduct"* in the capital markets context refers generally to professional regulation of registrants for qualifications and sound business practices, mitigating conflicts of interest, adequately serve their clients' interests, and the like. Beyond capital markets (i.e. in banking and insurance), the term means primarily prudential requirements (See also footnote 23).
[2] "Investor/consumer facing" regulation in banking falls to FCAC. This is excluded from the diagram, as it is not a core concern of this report.

Canada

1. Canada maintains a three-part, entity-based distinction between regulators:

- Banks are federally regulated, by the Office of the Superintendent of Financial Institutions (OSFI), including with regard to systemic risk. Banking regulation in Canada and elsewhere has historically focused on *prudential* regulation, meaning ensuring banks' safety and soundness, including by requiring them to maintain capital on hand and not to leverage themselves excessively. Consumer deposits were also protected by depository insurance (e.g., Canada Deposit Insurance Corporation (CDIC) in Canada), and systemically important banks could be supported by the Bank of Canada's "lender of last resort" function. Prudential regulation, which imposed compliance costs on banks, was the *quid pro quo* for the state guarantee of liquidity.[23]

- The capital markets are regulated based on a different premise: regulation is disclosure-based and, for registrants, directed toward mitigating conflicts of interest and information asymmetries, so that investors can make informed decisions about the risks they choose to run. The purpose of the securities markets is to make it possible for private companies to raise capital and for the public to invest money in those companies. Unlike the prudential regulation that characterized the banking sector, securities regulation historically has been market-oriented, disclosure-based and risk-loving (in the sense of the relationship between risk and return). Investments are not guaranteed.

- Insurance regulation is essentially consumer protection-oriented and directed toward preventing unfair trade practices. In recent decades it has expanded to cover some prudential regulation of insurers. In Canada, it is mainly the provinces and territories that regulate insurance (for example agents' and brokers' registration). OSFI does some prudential regulation.

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[23] Credit union regulation is not discussed in this report in any jurisdiction.

2. The provinces and territories carry out the day-to-day regulation of the capital markets. The *CMSA* proposes to regulate for systemic risk, including data collection, in the capital markets.

3. Canada also has a Senior Advisory Committee (SAC), a non-statutory consultative body and forum for policy discussion on issues pertaining to the financial sector. It is chaired by the Deputy Minister of Finance and its members are the BoC, Department of Finance, CDIC, Financial Consumer Agency of Canada (FCAC) and OSFI. This means that SAC can coordinate among all the federal-level entities listed in table 1 above in relation to the stability of the Canadian financial system. The *CMRA* would presumably join this committee.[24]

[24] See IMF, IMF Country Report No. 14/29, "Canada: Financial Sector Stability Assessment" (February 2014): https://www.imf.org/external/pubs/ft/scr/2014/cr1429.pdf; also Government of Canada, Budget 2015, Chapter 4.1, http://www.budget.gc.ca/2015/docs/plan/ch4-1-eng.html. ("The Senior Advisory Committee … supports the provision of advice on a broad range of issues related to the stability of the Canadian financial system and legislative, regulatory, and policy issues affecting the sector. … It is expected that the Capital Markets Regulatory Authority will contribute to SAC deliberations after it has begun operating.")